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Agricultural.

THE SOCIETY FOR THE PROMOTION OF AGRICULTURAL SCIENCE.

This society has held three annual meetings, and is now well settled in its sphere of usefulness. It has a membership of thirty-eight, selected for their knowledge of agricultural science and skill in experimental work. This membership is not composed of popular, but scientific agriculturists—an association which ignores the commonplace opinions and crudities of popular society meetings. It attempts to sift untruths, errors and old traditional fallacies out of the mixed practices of farmers, and substitute the truth in its stead, giving reasons and experiment to fortify it. It comprehends the necessity for an educated community, so that reason may take the place of assertion. It assumes the task of voluntarily imparting to farmers the latest results of scientific research and investigation. That this information may be more widely disseminated than through the uncertain report of the local press, the papers read before the three meetings already held, are printed in a volume, and can be had for half a dollar by addressing Prof. W. J. Beal, Lansing. It is a book of 138 pages, and the topics treated are of timely character, and many of the hard questions farmers have thought about, but which they have no means of determining, are here elucidated and explained by men who have the appliances and the scientific skill to assist them in getting at the real facts.

An article by J. J. Thomas, associate editor of the *Country Gentleman*, on Applying Fertilizers to Roots, by the knowledge it will give of the roots of farm crop plants, will repay the cost of the book several times. It gives the extent to which they reach at certain heights of the plant, and is a better answer to G. A. S., in last week's *FARMER* than any correspondent of the paper is likely to give. It shows the fallacy of applying anything as a manure at the base of the root in a little pile, when the feeding roots are from twelve inches to three feet away from it.

"Testing Seeds" by W. J. Beal, and the "Ripening of Wheat" by R. C. Kedzie, are both valuable additions to the stock of knowledge possessed by the average farmer, and are both timely. If the information gathered into these two articles was more widely diffused, much of the halting indecision of farmers as to seeding and sprouting of crops would give place to certain knowledge gathered by painstaking scientific men, in the interest of general agriculture.

To the inquiring mind Dr. Kedzie's paper on "The Services of Nitrogen for Plants" is an interesting one, and as a preliminary study, gives promise of still farther acquisitions of knowledge in this interesting search. This paper is only the result of initial investigation, which is to be continued until something definite is determined.

This society is now on a substantial basis, having passed its critical point, and takes rank among the first in scientific attainments. Its papers and proceedings will be looked forward to in the future with much interest, and the demand for its volumes will increase as the society becomes better known. Only a few of the 30 important papers in Vol. 1st will be attainable in any other form, so that those who wish to avail themselves of the information contained, must purchase the volumes as they appear. No farmer who attempts a library can afford to drop this from his list. In fact it supplements the need of some of the technical books entering the list for a farmer's library. There is no room to enumerate the names of the honorable members. They are widely scattered, in states bordering on the Atlantic, the Pacific, the great Gulf

of the south, the great lakes of the north and in intervening states. All additions to the membership will be made by invitation. It will be thus kept up to the high standard of its organization. The presidency has been retained by Prof. Beal for three years, and only released from a continuation by his express desire. It is not a society sounding timbrels above the heads of ordinary farmers, as this its first volume will show, but seeks to let in an electric light on the dark, mysterious places in his pathway. A. C. G.

AN INQUIRY.

PAWN RIVER, Mich., April 30, '83.
To the Editor of the MICHIGAN FARMER.
I have been a subscriber to your paper for but a short time, and would like to ask for a little information about the culture of corn or potatoes.

Should corn be cultivated deep or shallow the first time. Some claim that it should be cultivated deep at first, and as the corn gets larger cultivate shallower so as not to cut off the brace roots. Please inform me through the next issue of the *FARMER*. SUBSCRIBER.

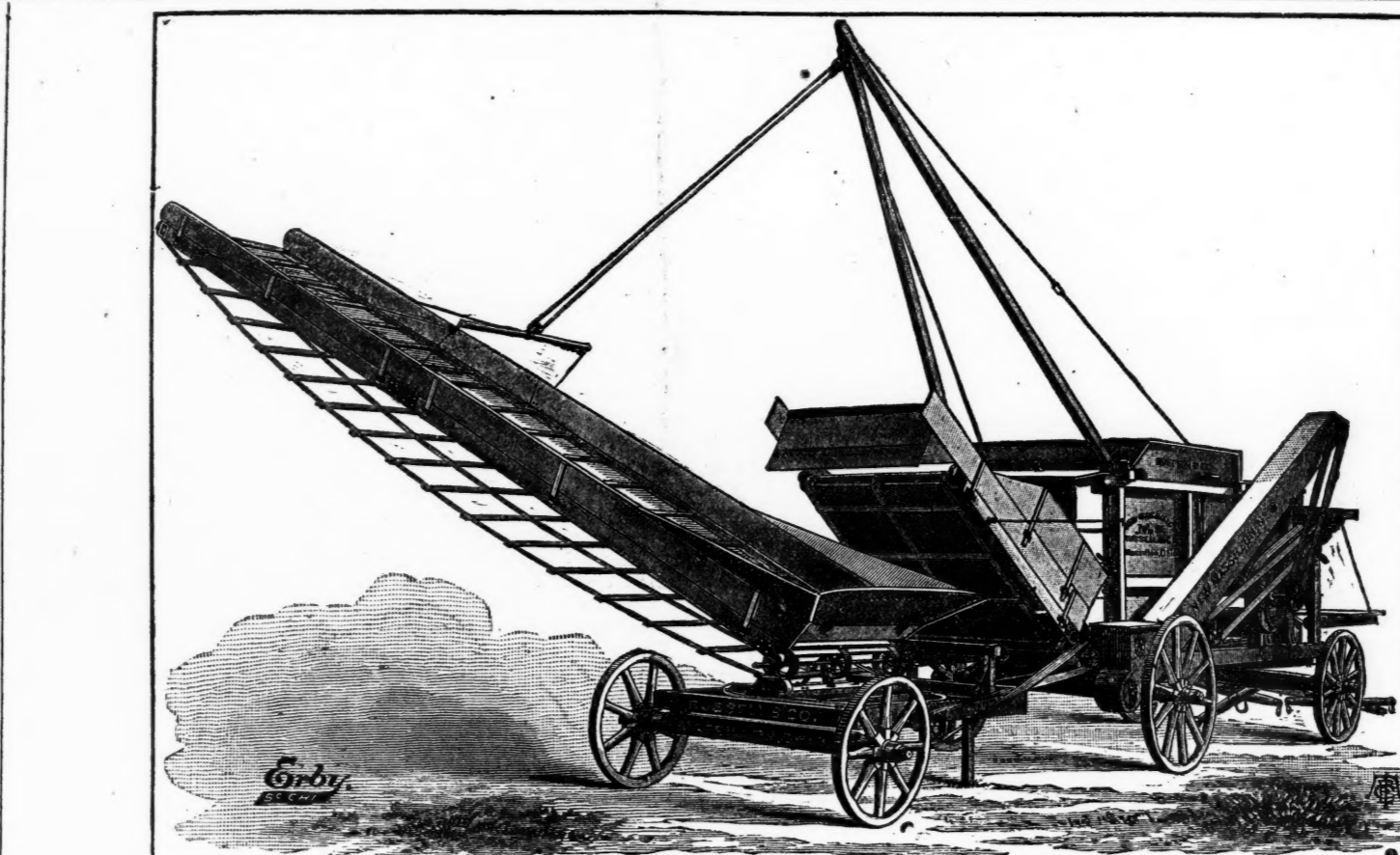
Those who claim that corn should be cultivated shallower as the corn gets larger, are wiser than their neighbors who practice the opposite way, especially if the season is a dry one. In a wet time, or if rain follows immediately after a deep cultivation, there is no perceptible damage; on the contrary there are those who think this kind of root pruning beneficial to the crop. New feeding roots start immediately and feed with more avidity than the old ones, but these feeders will not start unless there is abundant moisture in the soil. We have often known corn to become injured by seeding to clover in August, the cultivation necessary to insure fresh earth to receive the seed, disturbed too many of the feeding roots, and the corn languished from that time out. It is always hazardous to cultivate deep after corn gets as high as a horse's sides. Cultivate every week until the tassels appear and then stop, and you will not regret it when husking time arrives.

Land well prepared for potatoes is half cultivated, and the cultivation can cease when the tubers begin to form. The feeding roots will then occupy the whole surface. A deep, mellow, rich soil is best for potatoes, but it is essential that some attention be paid to seed and how it is planted. Many plant whole potatoes, but this is a great waste of seed, as only about three eyes of the potato will start, and the rest lie dormant. Plant before the potatoes sprout. Sprouted seed always make weak plants; cut the potatoes one eye on a piece and plant three pieces in a hill, throw away the seed end, or the most of it. When the potato is planted whole these eyes do not make the stems that appear about the ground if the eyes in the body of the potato are perfect. Take the potato in the left hand and cut the butt end nearly square across, arranging it to have the lower eye in the center of this piece, turn the potato around to the next eye and cut that, inclining the knife a little downward. The eyes will be found arranged in a spiral, one above the other, so that this manner of cutting is the natural way, and will give each eye its proportion of the bulk of the potato, and also retain its relation to the center or pith of the potato, which is the real stem. Each eye has veins which run to this natural center, and they are retained unimpaired by this manner of cutting. It has been found by experiment that this system of cutting will give 25 per cent better yield than the slashing, haphazard way potatoes are usually cut. Seed should be selected from well ripened potatoes, and if you wish to improve the seed, select your ideal potato as the one to cut for the seed. Such selection year after year will assure your reputation for growing potatoes far above those of your neighbors. A. C. G.

The Russell Independent Lateral Moving Stacker.

We illustrate herewith the above named new and useful machine, manufactured by Russell & Co., Massillon, Ohio. Attached to their "New Massillon" thrasher. It is a complete independent stacker, making a crescent shaped stack of forty-eight feet from point to point, and can be attached to any thrasher. It saves from two to four men on the stack, and saves the chaff by depositing it in the center of the stack. It is furnished in four sizes, and the price complete is \$125. In convenience, ease of working and of setting up and taking down, and in its operation, it is claimed to surpass all heretofore offered. Russell & Co. have been engaged in the manufacture of threshing machinery for forty-one years, and their thrashers, engines, and saw mills are well and favorably known wherever such machinery is used. Those interested in the new stacker should write them for full particulars.

MESSRS. L. W. & O. BARNES, of Byron, write us that the three year old ram Prince Bismarck, exhibited by them at the State Fair, was not shorn, has since been relieved of his fleece. It weighs 33 lbs. 6 oz., and was of 360 days' growth. His weight of carcass was 118 lbs. This makes an average of 32 lbs. for the three stock rams owned by the Barnes Bros., and all of less than a year's growth.



Russell & Co.'s Independent Lateral Moving Stacker. "New Massillon" Thrasher with Stacker Combined. Manufactured by Russell & Co., Massillon, Ohio.

THE SHEEP OF THE PERIOD.

It is literally wonderful to contemplate the improvement that has been made by American sheep breeders during the last half century. At the commencement of that epoch the average fleece of the country was about three pounds, and a 20 pound fleece had probably never been sheared on the American continent. Had a man at that day predicted that the time would come when bucks could be made to shear 40 pounds and ewes 25, he would have been thought a fit subject for an insane asylum. Let that man who doubts that we are a progressive people examine and compare the figures for two periods. Here before us lie the reports, authenticated beyond a shadow of doubt, of such fleeces as that produced by the buck of Mr. Short, shown at the Lansing shearing, of 41 lbs. 3 oz.; of E. S. Parmelee's "Greasy Bill," at the New York State shearing at Avon, turning off a fleece of 40 pounds, and of J. S. Beecher's yearling ram Jumbo, shown also at Avon, and producing, for a yearling, the unprecedented fleece of 32 pounds. A few years ago the world was astonished at the announcement that a ewe belonging to A. D. Taylor, of Macomb, had produced the then unheard of fleece of 26 pounds for a ewe.

But now comes to the front R. T. McCully & Bros., of Sedalia, Mo., with the champion ewe of the world, shearing 26 1/2 pounds, and going 12 ounces better than the Taylor ewe. We never expected to live to see Michigan's champion ewe beaten, but it is perhaps sufficient consolation that we still have the champion ram of the world.

How are you, Vermont? Come west, and we will sell you some sheep to improve your Green Mountain flocks. But we hope our Vermont friends will not lay this matter too much to heart. Vermont has enjoyed the championship in the sheep business for a long time, longer by far than any other State in the Union can expect to enjoy it. And in perfecting the grandest and noblest sheep in the world she has doubtless done more than any other State. But other States have done much. Ohio, Illinois and Missouri have crowned themselves with honor, but next to Vermont and New York, Michigan is entitled to the third rank.

In considering the sheep question with its vast results, one of the morals that forces itself upon the mind is the folly of all this self constituted aristocracy of blood.

The writer is a firm believer in the efficacy of blood, but it is the blood of the American Merino. Pure Atwood, and pure Hammond, pure Rich and pure Stickney have been rung in a thousand changes, and the men who have wielded these phrases most artistically and perseveringly have reaped a rich harvest in the sale of high-priced sheep. But the eyes of the world are becoming fully opened to the fact, that when we find a champion fleece—one that would defy all competition, it is generally produced upon the back, not that phrase is played out, not upon the back but upon the whole organic system from snout to hoofs, of a sheep in whose veins is mingled the blood of both these noted and noteworthy families of American Merino sheep.

This brings us to the words of our text, "the sheep of the period," which is not a pure Atwood, neither is it a pure Stickney, but it is the American Merino. As in the cattle business, it is not the pure Bate or pure Booth, but the noble Shorthorn that carries off the champion's belt. But the point in which the American people, and not only the American people but the inhabitants of the world are most interested, is the fact that the intelligent

breeders of our country have more than doubled the value of the sheep, as a wool producing animal, within the last fifty years. On this point there is no ground for a dispute, and the denizens of our country, who are enjoying the benefits of this vastly increased production, ought to, and I believe will, award "honor where honor is due," and the man who goes to his merchant and buys a good coat at a low figure does not stop to inquire whether the sheep that produced it was an Atwood or a Stickney. But still the breeders will cavil, and perambulate the public places, crying out *pure this or pure that*, in like manner as the artificers of brass in the days of the Bible thronged the public places crying out, "Great is Diana of the Ephesians," for, said they to one another (on the sly we suppose), "By this we have our wealth." OLD GENESEE.

WHAT LAND IS WORTH IN CALIFORNIA.

To the Editor of the Michigan Farmer.

DEAR SIR:—It may be of interest to your readers to know what land is worth here in California. And it will doubtless surprise them not a little to learn that land in certain localities, without any improvements, is held at a higher rate than land with improvements is held in the States east of the Rocky Mountains.

The value of land depends upon the increase that can be made from it. Land which only pays a profit of from \$5 to \$10 an acre in favorable seasons, and which in bad seasons pays nothing, is not to be compared in value to irrigable land that yields its certain profit of from \$100 to \$500 per acre each and every season.

Here, lands that produce the whole range of semi-tropical fruits, such as oranges, lemons, limes, figs, grapes, bananas, guavas, apricots, etc., in three or four years from planting, will yield a net income of from \$100 to \$500 per acre.

It will thus be seen that one acre of this land will produce from 10 to 20 times as much income as land east of the Rocky Mountains, and should therefore be worth 10 or 20 times as much.

It should also be remembered that these lands are located in the most healthful and delightful climate in the world; a climate so equable that it is never hot and never cold; where farming is a certainty; where two and even three crops of grain or vegetables are raised from the same land in the same year; and where by planting a judicious selection of fruits, the planter can pick fresh fruits each day of the year. Surely in such an earthly paradise land should be worth more than in countries where the temperature is arctic in winter, torrid in summer, and a mixture of both in the spring and fall.

PRICES OF LAND IN SEMI-TROPICAL CALIFORNIA.

First-class fruit and vineyard land, with water, unimproved, from \$50 to \$200 per acre, depending upon location. First-class corn, barley, squash, alfalfa, stock, dairy and hay land with water, from \$30 to \$100 per acre. Good wheat and barley land, without water for irrigation, depending upon rain, is worth from \$10 to \$25 per acre.

Pasture lands in large tracts, nineteenth-century, which is unfit for cultivation, sell from \$1 to \$10 per acre, depending in all cases upon location and quality. Improved places already in paying condition, sell for prices varying in proportion to the value of the improvements and net income they produce, say from \$100 to \$1,000 per acre.

Let not this glowing account of the climate, soil and productions of California induce anyone at the east, who is nicely fixed in a pleasant home, to abandon the

same, with a view of bettering their condition here at the west.

Take a lesson from one who has passed through many sad reverses in life, by not heeding the golden rule, "Let well enough alone." Yes, let well enough alone and stay where you are. Michigan is a good State to stay in. "Michigan! My Michigan!" with all thy arctic winters and torrid summers; with all thy chills and fevers; with all thy musquitos, potato-bugs and bed-bugs,—there are none of these pests here—with all thy faults I love thee still. J. S. TIMBETS.

SARATOGA, Cal., May 4th, 1883.

NOTES FROM LAPEER COUNTY.

To the Editor of the Michigan Farmer.

To let you know some of the improvements that are going on among the farms and stock of the southern portion of Lapeer County, is my purpose in writing to you at this time.

A recent visit to the townships of Attica and Dryden disclosed great improvements on the farms. Particularly noticeable is the number of fine, new barns which have of late taken the place of the old 30 by 40 foot—the regulation size of early days—with their big, 12 inch square timbers, which it was thought necessary to use in their construction, for here, as in most parts of Michigan, timber was plenty.

Stopping at Attica Station, on the Chicago and Grand Trunk railroad, on the morning of April 30th, I found Mr. Wm. H. Blow, of Thornville, who kindly took me in hand for a visit to some of the improved herds and flocks of the townships mentioned. Attica was once the center of a large lumber industry. Here were the large mills of Jenness & Co., which cut the pine which covered a large portion of the north half of Attica township, but of which there is now nothing left save blackened stumps, silent yet solid monuments of the stately pines, bidding the time when the big stump machine shall tear them from the soil to which they have clung for ages, and they will take their turn in the substantial fence, which if not "pig tight" is "bull strong" and durable. Oak timber is also becoming scarce and since it is nearly all gone, has become valuable. Mr. Dan. West informed me that he had lately sold from 40 acres the timber suitable for what are called pipe staves—only all the rest being left on the ground—for \$1,000. Yet after all, from a financial point, there can be no regret at seeing this timber removed. Nearly all this section is, good wheat land, and with the timber removed this same 40 acres would in two good wheat years produce a net profit equal to that of all this timber growth of centuries.

Going south from Attica the land is rolling, and as we pass to the south and west part of Dryden becomes quite hilly and more elevated, for here we reach the high ridge which, beginning in the western part of Macomb County, extends from northeast to southwest across the south part of Lapeer, Oakland, Livingston and Jackson counties, and on which are the sources of the streams of the eastern part of the State; the Clinton, Flint, Huron and Shiawassee.

This section of the country was settled in places, quite early in the history of this part of the State, but the absence of railroads hindered its development greatly. At present railroad facilities are very good; by the Bay City road on the west, the Chicago and Grand Trunk on the north, and the P. & Caseville on the east, it has an outlet in every direction and the results are seen everywhere.

It sounds strange to the boys of to-day to hear the old pioneer farmers tell of hauling their wheat to Detroit to market, a three-days' drive. As illustrating the progress of fifty years let me mention an incident: As we were passing an old farmhouse in Dryden Mr. Blow said: "Here was the first postoffice in the town, and I remember well coming here when a bare footed boy, to see if there was a letter from 'York State' for our folks, and finding that there was one with twenty-five cents postage due on it, which I had to go back and get before receiving the letter; and twenty-five cents was a great deal of money in those days."

But let me say something of the improved stock that I came to see. Our first stopping place was at the farm of Mr. J. P. Smith, the newly-elected supervisor of Attica, and three miles southwest of the station. Here are 300 acres of good land adapted both to grain and stock, for while it is well adapted to growing corn and grass it is dry enough for wheat, and a healthy soil for stock. This is a farm which was cleared up by one of the old pioneers, and has within a few years come into the hands of Mr. Smith and is now well improved and therefore ready for some good stock, and we find a beginning made which, under the direction and enthusiasm exhibited, promises to develop into something good. I found here Shorthorn cattle, unregistered Merino sheep, and small Yorkshire swine. Mr. Smith is starting a herd of Shorthorns which he proposes to make a first-class herd. He began with the red-and-white heifer Flute, Vol. 18. Allen's H. B., calved in 1878, sire Hero 19992, a bull bred by Wm. Ball and sired by Oxford Argyle 20534. Flute traces on the side of the dam to stock of old Splendor and imp. Windle 185. She died this spring of milk fever, leaving three heifers by 3d Earl of Spring Lake 35492, a bull bred by John F. Hagaman, of Romeo, sired by his bull Earl of Springfield, his sire 7th Earl of Oxford 9085 and from a Craggs cow. These heifers have fine quality and are strong and thrifty. Clotilda, three years old, and calf make the balance of the herd. She is by Duke of Fair Plains 26207, and dam Red Lady, a Henry Clay cow. Mr. Smith has selected for his next breeding bull Beaumont 31767, a 23rd Duke bull bred by Avery & Murphy, dam Brenda 2nd, a Bloom with five Duke crosses. This is a pure red bull, short legged, compact, weighing 2200 lbs in good condition, evidently retaining the propensity to take on flesh for which this family of Blooms are noted. This bull is now five years old, and as he has always been carefully handled, is at just the right age to get strong, vigorous calves. I could not but admire Mr. Smith's judgment in this selection. From this bull and the heifers he has he cannot fail to get a strong, thrifty herd.

Mr. Smith keeps about 100 Merino sheep. They are of the blood of the old unregistered stock of D. P. Dewey and W. H. Blow. I noticed some ewes which if they could be registered, would stand among the good ones. Mr. Smith believes in using registered sires, and last fall took the first selection of ram lambs from Mr. Blow's flock.

I noticed that Mr. Smith cut all his cornstalks, and on inquiry learned that he used a tread power for this purpose, to which he also attaches a corn-sheller and grinder. The latter he prizes highly and would not be without at any reasonable expense, as he finds that he can grind his feed at very little expense, hardly more than the trouble of going to mill; and saving the sixth, eighth, or tenth which the miller takes for toll.

After dinner, in company with Mr. Smith, we went along toward the south to the farm of Daniel West, or "Dan.

West" as every one in Lapeer county, young and old, calls him. Here we found Mr. Walter West, his son, who rents the farm. A few years ago Mr. West caught the spirit of improvement in stock and has quite a herd of Shorthorns.

After looking his stock over we took Mr. West in and drove over toward the center of Dryden township to the farm of J. W. Miller, who was with his father a pioneer, having come into Michigan forty-six years ago. Mr. Miller also has some Shorthorns which we looked over; but of these, the herd of Walter West and also of Mr. A. B. West, I must defer mention till another time.

From here we drove back to the northwest part of the town, where one mile north of the village of Thornville lies the farm of Mr. Blow. It was now dark, but Mr. Blow got his lantern and we went through his flock of registered Merino sheep. Mr. Blow has been a breeder for more than twenty years and had, previous to the organization of the Merino registers, gathered a choice flock of well-bred sheep; but unfortunately, in common with many other flocks, lacked something in their history to entitle them to register. Ambitious to be among the best he sold this flock and in 1879 started a registered flock by the purchase of ten ewes from J. E. Gilmore, of Pavilion Center, New York. Five of these were sired by Smuggler 123, N. Y., and 423 Vermont register; he by Stowell ram 256 Vt., dam by Champion 170 Vt. The other five were by Genesee 172, N. Y., a ram too well known to need description here. The dams of these ten ewes were bred by Bronson and Mariner, of New York, whose flock descended from some of the best flocks in Vermont; such as Robinson, S. S. Rockwell, Wheeler, Stowell, E. G. Farnham and F. H. Dean. He soon after purchased 17 ewes, six of them sired by Granger 338 N. Y., a ram bred by W. G. Markham, sired by L. P. Clark's Patrick Henry 183 Vt., sire Kilpatrick (71), dam by Gold Drop (64). Patrick Henry gave five fleeces which averaged 29 1/2 lbs and one of them cleaned 9 lbs, 10 oz. The dam of Granger was by All Right 192 N. Y. Five more of these ewes were sired by General 204 N. Y., bred by L. P. Clark, of Vermont, and also sired by Patrick Henry; four more by Genesee 2nd 387 N. Y., bred by E. Townsend and sired by Genesee 172 N. Y., dam by Addison 100, therefore strongly inbred. The remaining two were by Genesee. The dams of these ewes were bred by Victor Gage, of Addison, Vermont; Henry Thorpe, of Charlotte; L. H. Dean, of Cornwall; and E. Townsend, of Pavilion, New York; and several of them were sired by Smuggler 123 N. Y.

Mr. Blow has a crop of yearlings from these ewes, sired by his present stock ram Young General 173 Mich. register, which indicate the superior breeding qualities of both sire and dams, as well as the judgment of the breeder in selecting material for a flock. Young General was bred by S. S. Lusk, of Victor, N. Y., sired by L. P. Clark's 144 (483) Vt. and now owned by J. H. Thompson, of Grand Blanc. L. P. Clark was sired by General (204) Vt., dam by Kilpatrick (71). The dam of Young General was by Green Mountain 3rd 113-N. Y., bred by G. F. Martin, gr. dam by Dean's Little Wrinkly (48) Vt. Certainly no better breeding could be found. This young stock shows strength of constitution, have good forms, with dense, fine fleeces with a good length of staple; just such fleeces as would make good shearing records, and good cleaning records also.

Mr. Blow prefers the buff color and is an admirer of "Atwood" blood. Wool is what he is after, and he is certainly on the right road. An inspection of his shearing record for 1882 showed such weights as these: Ewes 16 lbs 2 oz, 15 lbs 3 oz, 15 lbs 10 oz, 16 lbs 4 oz, 15 lbs 5 oz, 17 lbs, 15 lbs 11 oz, 19 lbs 3 oz, 16 lbs, 15 lbs, 18 lbs, 17 lbs, 16 lbs 2 oz, 15 lbs 3 oz, 16 lbs 11 oz, and of yearling rams, 19 lbs 5 oz, 16 lbs 2 oz, 18 lbs 5 oz, 19 lbs 2 oz, while the whole flock average a little over 14 lbs. Ewe No. 103 at 3 years old bred a lamb and sheared 19 lbs 3 oz of clean wool.

There were two very fine unregistered ewes which Mr. B. keeps for their good qualities, which he calls the "Thompson" ewes, a good recommendation for their breeder.

Mr. Blow possesses one necessary element of success, that he is a good shepherd, as his sheep show all being in good healthy condition. His farm lies high and dry, making it very healthful for the flock. With the sheep he has and with his care and knowledge of breeding, he cannot fail of success.

The effect of such a flock in any section cannot be told. Everywhere we stopped we found a registered ram from Mr. Blow's flock, in use on grade or unregistered flocks; and he has a demand for all he can raise. They seem to believe in them, and will have no other. After being hospitably cared for, I again looked over the flock in the morning, finding that daylight only added to their attractiveness, and left Mr. Blow's care for the station, well pleased with what I had seen.

On the way we called at the farm of Mr. A. B. West and saw his Shorthorns, mention of which must be deferred. All through this rolling section the wheat-fields look bare, and I think a fair estimate would not place the wheat killed out at less than 50 per cent. on an average; and at that time the cold, dry weather was constantly decreasing the probabilities of the crop. B.

PORT HURON, May 11th, 1883.

Horse Matters.

THE OWOSO BREEDING STABLES.

Additions Recently Made to its Breeding Stock.

Messrs. Dewey & Stewart, of Owosso, have recently added some new blood to their breeding stables. One of these animals is Furor, previously referred to in the FARMER, designed to take the place of Jerome Eddy, recently sold to New York parties. The breeding of Furor is as follows:

FUROR—Bay colt (brother to Fugue), foaled 1881, by King Rene.
1st dam, Fuga (dam of Fugue, two year old record, 1882, of 2:32), by George Wilkes, (sire of So So, 2:17).
2d dam, Betsy Trotwood, (dam of Phal las, 2:23, by Clark Chief (sire of Croix, 2:19), by Mambrino Chief, (sire of Lady Thorne, 2:18).
3d dam, by Erickson, 2:30, (sire of Double, 2:35 as a four-year-old son of Mambrino Chief).
4th dam, by Sir William.

King Rene, the sire of Furor, was sired by Belmont, (sire of Nutwood), by Alexander's Abdullah, 1st dam, Blandina, (dam of Swigert, Giger, Abdullah Pilot and Solitor), by Mambrino Chief. 3d dam, the Burch mare, (dam of Rosalind, 2:21, and Donaldson, 2:37) by Brown Pilot.

Furor is a full brother to the filly Fugue, that last year, as a two-year-old, obtained a record of 2:32.

The two-year-old stallion colt Abdullah Wilkes, was also purchased. He is bred as follows:

ABDULLAH WILKES—Bay colt, foaled 1881, sired by Bourbon Wilkes, son of George Wilkes, 1st dam, Carrie Sharp by Alexander's Abdullah. 2d dam, by Imported Bonnie Scotland.

Three fillies and a mare were purchased. One of these is Netty Miller, a bay filly foaled in 1881, and bred as follows:

Sire, Bourbon Wilkes. 1st dam, by St. Elmo, 2:30, son of Alexander's Abdullah. 2d dam, by Canadian Chief. Bourbon Wilkes was sired by George Wilkes dam Miller's Favorite, who had a record of 2:24 as five years old. Second dam Lizzie Peeples, by Wagner. Lizzie Peeples was the dam of Jim Monroe, sire of D. Monroe, 2:27, Dread, 2:27, Judge Hawes, 2:24, Monroe Chief, 2:18, also dam of Jo Downing sire of Dick Jameson, 2:20, and Abe Downing, 2:20.

The mare mentioned above is Rosa Bell, eight years old, and sired by Belmont, son of Alexander's Abdullah. 1st dam by McDonald's Mambrino Chief, son of Old Mambrino Chief. 2d dam by Pilot Jr. 3d dam by Bay Bashaw. This mare showed a trial in 2:41 as five years old, and is in foal by Charles Backman, a son of Tysdyk's Hambletonian that sold at four months old for \$5,000.

From W. H. Wilson, of Kentucky, was purchased two yearling fillies sired by Indianapolis, 2:21, -son of Tattler 2:20 as a five year old, -Pilot Jr., the sire of the dam of Maud S., 2:10; Indianapolis dam was Indiana, by Mambrino Chief, the sire of Lady Thorne, 2:18, and others. They have bought these fillies for the Pilot Jr. blood in them, coming through the best son and grandson of Pilot Jr.

Furor was purchased from his breeder, H. C. McDowell, and the price paid for him was \$6,000. Abdullah Wilkes was purchased for \$1,000; Netty Miller at \$500, both of James Miller, their breeder, of Paris, Ky. Rosa Bell of Newton Hall, Woodstock, Ill., at \$400. The two fillies purchased of W. H. Wilson cost \$250 each. It will be seen from the above that Messrs. Dewey & Stewart have no idea of resting content with the success their stable has already secured, but intend to keep near the head of the procession, no matter how fast the pace is.

Horse Notes.

The trotting stallion Black Owl, owned by the estate of the late Andrew J. Cutter, of Parma, Jackson County, has been sold to M. V. Wagner, of Marshall, this State, for \$5,500. The horse will be handled by Pete Johnson, of Chicago, this season.

The breeding and training stables of the well known breeder of thoroughbred horses, Mr. James A. Grinstead, at Georgetown, Ky., were recently destroyed by fire, and the imported stallions Limestone and Thunderbolt, together with six colts that were in training, were lost. The loss to Mr. Grinstead is put at \$30,000.

This list of entries to the Chicago trotting meeting has been published, and 276 entries, divided among the various classes as follows: 2:19 class, 11; 2:40 class, 28; four-year-old race, 24; 2:23 class, 13; 2:27 class, 20; 2:30 pacers, 20; 2:17 class, 5; free-for-all pacers, 12; 2:30 class, 24; 2:21 class, 11; 2:25 class, 12; three-minute class, 20; 2:30 pacers, 14; 2:35 class, 19; five year-old race, 7; three-year-old race, 25; 2:14 class, 2. This last class was the only one that did not fill.

It is no wonder that fast trotters command extremely extravagant prices. A list of a few of the largest winners has recently been published, from which it appears that Goldsmith Maid trotted 222 heats in 2:30 or better, won \$964,200 during her trotting career, and captured 121 races. An American girl won \$115,100 in 40 races; Baryon won \$114,950 in 65 races; Judge Fullerton won \$102,035 in 52 races; Floyd Temple won \$90,000 in 86 races; Hopeful won \$89,000 in 43 races; Lady Thorne, \$69,575 in 41 races. The actual gain brought to her owners by Goldsmith Maid over expenses, was \$246,750. It is a question whether it is best to buy a silver mare or a 2:10 trotter.

A BREWSTER dispatch from Boston, Mass., says: "A valuable two-year-old colt, owned by Lyman S. Rhodes, of the Dorchester District, Boston, cut his throat while in pasture on a barbed wire fence and bled to death. The colt was valued at \$3,000 and was soon to be sent West." Horses should never be kept in a field fenced with barbed-wire, as they have a habit of standing close to a fence and stretching their necks over it whenever anything attracts their attention. To avoid trouble all barbed-wire fences should be built with a top board, which would prevent animals running against them at night, or tearing their flesh if they happen to approach them in the day time.

One voice all over the land goes up from mothers, that says, "My daughters are so feeble and sad, with no strength, all out of breath and life at the least exertion. What can we do for them?" The answer is simple and full of hope. One to four weeks' use of Hop Bitters will make them healthy, rosy, sprightly, and cheerful.

Farm Matters.

OUR FRENCH LETTER.

An Unpropitious Season in France—Taxation and its Inequalities—"Bluesness" in Milk—Cotton Seed Cake as Fodder for Cattle—A Vegetable as Food for Hogs—Top-dressing for Meadow Lands.

PARIS, April 21, 1883.

The bad effects of a long, wet and inclement winter, are not diminished by the cold, hard spring. The autumnal preparations of the soil had been excellent and extensive, but the appearance of the crops is not at all what was expected. The question of top dressing becomes now very important, and the farmers must keep a vigilant eye as to the necessity of these, and how they ought to be applied. They should ever be harrowed in; unless so mixed in the soil, these fertilizers lose the greater part of their efficacy.

The heavy taxation tells severely on the agricultural interest. The farmers are discontented at witnessing year after year reductions in taxes confined to industries, thus ignoring that it is the prosperity of agriculture which causes industry itself to flourish. The fees of registration for transactions in land are excessive. But this is a minor hardship. The railway tariffs are exorbitant; the State receives 33 per cent of the profits of the companies, for all the railways in France revert to the State after a period of 99 years. Nothing then prevents the State consenting to a diminution of its dues to ameliorate traffic rates. Again, it is not so much railways and highways that are needed, as branch roads opening up communication with the trunk routes, and even when these secondary communications are constructed, arrangements must be made for keeping them in working order.

M. Roiset continues his very interesting experiments connected with "bluesness" which attacks milk, and which the peasantry attribute to witchcraft. The color phenomenon is due to the alteration of the caseins, where fungi play the role of leaven or ferment. To this must be added external causes, such as a fodder composed of plants of a rapid and luxuriant vegetation, elevated temperature, and troubled digestion. Extreme cleanliness in the dairy and of the vessels to destroy the germs of the fungi is the only known preventive.

Cotton seed cake is not largely employed in cattle feeding in France, and what is, comes from Egypt and is consequently inferior. It is less clean than the American cotton seed cake, and the pulp containing more bark is more indigestible. Egyptian cotton seed cake is a positive poison for calves and lambs, as the enormous quantity of woody matter which it contains, rests in the folds of the undeveloped stomachs of these animals, there decomposing and inducing a mortal disease. The American cotton seed cake mixed with maize flour, is capital food for milch cows, producing a large secretion of milk and rich yield of butter; the flour corrects the excess of nitrogenous products in the cake. For fattening alone, maize flour solely is preferred.

M. Joigneaux strongly recommends the culture of the yellow leek as food for pigs. In the district of Anjou farmers grow it extensively; young pigs just weaned eat it with special avidity, and it stands the winter well, coming to the rescue in March and April, months when fodder fails.

It is not the efficacy of the method Pasteur for the prevention of charbon by vaccinating stock that public attention now follows, but the duration of that efficacy. It is certainly good for six months, and in July we shall have its virtue put to a twelve month test. At Herve, two heifers had been inoculated in July 1882, with the prepared virus; ten days later they were inoculated with virus taken directly from the carcasses of sheep that had died from charbon. The heifers resisted the disease. They have recently been vaccinated with the virulent virus and now after nine months, they proved rebellious to the malady. A very decisive experiment is about being made at a farm in the neighborhood of Grand-Rechain, where the charbon malady is so chronic that the rearing of stock has had to be abandoned. The carcasses of the animals have been interred in the same soil. It is proposed to allow sheep and cattle that have been vaccinated by the Pasteur process to freely graze over the infected pastures. That experiment ought to be conclusive.

French farmers this year have employed a good deal of composts to meadow lands; for these and dry soils nothing is better than an inch coating of prepared loamy manure. A slight switch of the harrow will effect a happy union of the compost and the soil. A top dressing of mixed fertilizers, such as dissolved guano, poultre (charcoal powder and night soil), nitrate or sulphate of ammonia, superphosphate of potash, etc., at the rate of 14 cwt. per acre, will tell on the meadow.

Developing Heifers for the Dairy.

In developing heifers for the dairy the food needs to be of such a character as to stimulate the growth of the muscles and frame, rather than the deposit of fat. Food containing a large proportion of oil or starch is likely to cause too free a deposit of fat, in feeding well for the development of muscular and osseous fat to line the muscles and cushion the joint. The heifer needs a muscular, rangy frame, a strong, active digestive system, and, to this end, she must have a good appetite. A heifer calf that is a persistently dainty eater should be disposed of, as a profitable cow must be a good eater and digester. It is the digested food that makes the milk and butter.

Skim milk is an excellent food upon which to raise a heifer calf. It is deficient in oil and therefore sometimes produces constipation. The best antidote to this is to mix a small quantity of boiled flaxseed with the milk. This is rich in oil, and one-half gill per day will keep the bowels in good condition, and increase

the growth of the calf. This would only require one peck of flaxseed to last a calf four months. The flaxseed in this case is only used to counteract the tendency to constipation, but it will be well paid for in the growth of the calf. If, after the calf is 50 days old, the feeder wishes to further increase this ration, let him add one pound per day of wheat middlings or shorts. This will supply the extra food required by the calf at that age; and at 80 days old another pound of middlings may be added. Continue giving the skim-milk if you have it, till the calf is at least six months old.

The first winter the calf may be fed on early-cut clover hay, and two pounds of middlings, or two pounds of oats and corn ground together.—*National Live Stock Journal.*

Fertilizers for Corn.

Orange Judd, in an article on corn culture, in which he says two billion bushels of corn ought to be our figure for corn this year, says: "Corn is a sun plant, and suffers greatly from wet, 'cold feet.' The warmer the soil, and the freer it is from abiding water, the better will the corn grow. Yet in the best growing short season, it loses sap rapidly by evaporation from its leaves, and the surface soil is also then quickly deprived of sap-supplying moisture. Therefore let the soil be made fine deep down, and when needed, put some fertilizer well below the surface, to invite the roots down where they will find plenty of food-carrying sap in the severest drouth. This is of great importance on the dark prairie soils, and on all other light, easily dried land. Those who plow for corn only three or four inches deep, may expect to lose half the growth if there be a few successive hot days.

"There are a few very soils, even on the most fertile prairies and bottomlands, where a little stimulant material from the barn-yard, or artificial fertilizer factory, placed six to ten inches below the surface, will not develop a much greater growth of deep sap-collecting roots. Roots almost instinctively strike out towards a supply of nourishment. Moisture, soaking upward from the buried fertilizer, touches and develops the starting roots. A very little fertilizing material pretty near the seed, gives it a quick start; the main supply should be as deep as the soil is pulverized and aerated, ready to welcome the roots. Perhaps the neutralizing effects of alkalis upon the organic acids in the soil is why ashes, potash, and soda are better fertilizers for corn than the nitrogenous manures.

"Don't plant too early. Corn put into a warm soil, if not too dry, starts off into rapid growth, and, as a rule, overdoes and goes ahead of that planted on cold, damp soils, if indeed, the latter does not fail to germinate before it loses its vitality, as is often the case in a cold, rainy season."

Dairy Utensils.

In an article on the care of tin and wooden utensils in the dairy, the New England Farmer says:

"Milk and cream are greasy substances. Let either come in contact with a clean, dry piece of wood, and they will leave a grease spot, and the drier the wood the deeper the grease will penetrate the pores, and the more difficult it will be to remove. Indeed, as a matter of fact, a piece of wood that has its pores once filled with grease or oil, is filled forever, so far as any washing will affect it. As regards bringing grease or water into contact with dry wood, the first possession is equal to more than the traditional 'nine points in law.' A greasy board can not be wet or washed in clean water, nor is it possible to make a thoroughly wet piece of wood absorb grease or oil, and this is the whole secret of the use of water in preparing all kinds of wooden utensils for use in the dairy. Wooden milking pails should be discarded entirely, unless the wood is completely filled with shellac varnish, or some substance that will make the surface about as hard and impervious as glass. Common paint is objectionable at any time, besides, it soon wears off, leaving the wood exposed to the drying influence of the air. Tin is probably the best material for milking pails, and while new and bright, answers well for setting the milk and holding the cream. After the tin becomes worn off, so the iron is exposed, sour cream is liable to be affected unfavorably by remaining in contact with it.

"With careful usage, good tin utensils will last in good condition in the dairy, for a long time. But for churns, butter workers, trays, ladles, and stamps, there is nothing equal to good, clean, hard wood, thoroughly soaked before using; and this thorough wetting is of more importance than some may suppose. Cold water is just as good as hot, if time enough is given it to penetrate the wood, but hot water takes hold of the wood much quicker, and is therefore to be preferred. It is a common practice with some dairy women to soak their churns in cold water, in summer, and in hot water in winter, as an aid in tempering the cream, but there are better ways for doing this.

"Our rule would be, to wet every wooden utensil used in the dairy, first in hot water, to save time in swelling the wood, and then in cold, to bring it down to a suitable temperature to use. Care should also be taken to keep the wood wet all the time it is in use. A butter worker set away for a short time, with the butter in it, will dry at the edges, and unless again wet before using, will be likely to absorb the butter when brought in contact with it. Whenever butter 'sticks' to wood, the wood is not in fit condition to use, and the chances are that it can never be quite thoroughly cleaned again. Look at any piece of dry wood through a magnifying glass, and it will be found full of deep cracks and holes. Now, let grease once get well into these crevices, and it is there to stay. Washing cleans the wood at the surface, but swells it at the same time, and thus shuts in the grease which is deeper in. On no account whatever, should any wooden butter utensil be set in the sun to dry. The wood will become warped, the joints start, and a leaky, 'stinking old churn' will take the place of what might, with proper care,

have lasted and remained sweet a score of years.

"Dairywomen often complain because their butter stamps and cups check or split after a little use, so as to become worthless. A butter stamp should be washed and scalded after use, and then put away damp, and where it will keep damp until wanted again. Any wood used for handling salted butter, will soon be filled with brine, and there is no necessity of drying it through and through."

Pleuro-Pneumonia in Sheep.

Pleuro-pneumonia of a non-contagious, though fatal character, has recently appeared in a flock of sheep belonging to Mr. G. White, of Windsor, England. It appears that on September 25th last Mr. White purchased two lots of lambs at Werthwell fair. In one lot there were 130, and in the other 100. After purchasing all were mixed together and conveyed to their destination by train. On arriving at Mr. White's farm they were given a run at grass, with dry food, and on the following day they were turned on rape, receiving at the same time a liberal amount of cake, chaff, etc. A few days later two of the 130 were found to be ailing, and soon succumbed to acute disease of the chest. Since that time between thirty and forty have died, and nearly all that remain of the larger lot are suffering from the malady. It is stated that twenty of the diseased lambs were placed in an orchard with two others of Mr. White's home flock, both of which soon sickened and died, and it is believed that the latter were infected by the former. Its non-contagious nature, however, is pretty clearly shown by the fact that, notwithstanding the two lots were pastured together, and otherwise treated in every respect the same, the lot of 100 continued to thrive and were disposed of in good condition after cohabiting with the sick animals for ten to fourteen days.

As Mr. White's sheep, other than those recently purchased, were receiving the same food as the 230 referred to, there does not appear to be any reason to regard the disease as having a dietetic origin.

The first indication of sickness is marked by dullness and prostration, the stricken beasts separate themselves from the flock and seek shelter and warmth. Food is early refused, the ears are pendulous, the back arched, the head droops, the bowels are constipated, and the belly tucked up. These symptoms are soon followed by others denoting pulmonary derangement. A profuse discharge issues from the nose and eyes, the breathing becomes quick and panting, and later on extremely labored. Simultaneously there is a frequent and painful cough, with soreness of the walls of the chest, and liquid evacuations from the bowels. Great emaciation and extreme prostration result in an inability to stand, and then death quickly ensues from asphyxia or suffocation.

The changes revealed by post mortem examination refer to the sac of the heart, the lungs, and the pleura. The heart sac is thickened, and in many cases adherent to the outer surface of the heart. The cavity of the chest contains a watery or milky fluid, which during life compressed and disabled the lungs. The lining membrane of the chest is variously altered by inflammatory action, and the lungs are extensively consolidated, and in many instances beset with abscesses of considerable size.

Halters for Heifers.

Heifers should never be allowed to grow up to milking time without having been halter broken. Also, while young, and consequently a great deal more manageable, they should be taught to stand around and become familiar with being handled, so that when an attempt is made to milk them, they will not be frightened nor inclined to kick. It does not take any longer to break a heifer when young, and have her accustomed to being handled so that she will submit to being milked when the time comes, than it does after she comes in. It must be apparent to any one who gives the subject a moment's thought, that the latter is the worst possible time to undertake training a heifer. She is in an excited condition; wildly afraid her young will be molested; naturally considers the effort to milk her as interfering with the rights of her young, which makes her still more nervous and excitable, and with a motherly instinct she will hold up her milk to save it for the calf. I like the plan of putting halters on heifers and tying them up in stalls the same as horses, when they can be taught to stand around, back up and step forward at the word, and being led out to water, they can easily be taught to follow the halter. The udder and teats should be handled frequently, and the card brush used often. When these pains are taken, much annoyance may be saved afterward, and when it is necessary to move the cow from one place to another, her docile and gentle habits will be more than a reward for the trouble, and in striking contrast with yelping dogs, yelping boys, whips, stones, clubs and curses, which too often constitute the outfit for driving unbroken cows.—*F. D. Curtis in N. Y. Tribune.*

Agricultural Items.

A MEMBER of the Elmira Farmers' Club believes the cause of dusty hay is too early storing, taking it from the meadow before perfectly cured.

It is the practice of true economy for every farmer to produce from his farm as many of his supplies as he can, at a cost below what he would have to pay for the same.

The first agricultural journal published in the United States was issued in Baltimore in 1819, under the title of *American Farmer*. It lived 15 years, when it was succeeded by the *Farmers and Gardeners*.

GREEN manure is not good for onions; to give the best results it should be thoroughly rotted, fined, and applied in lavish quantities. Barnyard manure is better than commercial fertilizers for that vegetable.

A VERMONT experimenter who tried 175 kinds of foreign grain, last year, reports that all varieties of foreign wheat rusted badly, especially those from more southern climates.

American oats were better than foreign sorts, barley about the same.

Hop roots sell at Waterville, N. Y., at \$5 per bushel, and hop farms have been sold in the lump at \$300 per acre. Three hundred and sixty-four thousand hop poles have been landed at Waterville alone. It stands to reason to expect that "some body is going to get hurt" in hops pretty soon.

J. L. HUBBARD, of Walpole, N. H., says that silos have undoubtedly "come to stay" for a while at least, and that ensilages will furnish a third or fourth class feed, but adds that unless grain is bought from outside sources, or foreign fertilizers used, the improvement of run-out farms can not be very rapid.

A RHODE ISLAND farmer selected the lowest ears of a variety of corn which had a particularly tall stalk, with ears set high upon it, and by continued selection of lowest ears, regardless of size or appearance, got a variety equal to the original, but with low ears, and stalks materially reduced in height.

THE Dublin Farmer claims that a full feed of hay to horses, following the feeding of concentrated food, is wasteful, for the reason that it crowds the first out of the stomach before proper digestion has been accomplished. And so, in order to secure best results, hay should be fed at first and the concentrated food afterward, which leaves it to become fully digested, with no danger of being crowded away or out of the performance of its desired purposes.

THE American Cultivator says that cows while in full milk require a very large amount of water. Professor Horsfall, of England, found that cows, when giving only 20 pounds of milk per day, drank 40 pounds of water more than fattening cattle of the same weight. M. Dancel reported to the French Academy of Sciences that by inducing cows to drink more water, the quantity of milk yielded by them can be increased in proportion up to many quarts per day, without perceptibly injuring its quality. Whether or no these experiments may be considered conclusive, M. Dancel found, by a long series of observations, that the quantity of water habitually drunk by each cow during 24 hours was a criterion to judge of the quantity of milk that she would yield per day. He infers that a cow which does not usually drink as much as 27 quarts of water daily must be a poor milker—giving only six or seven quarts per day; on the other hand all the cows which consumed as much as fifty quarts of water daily were excellent milkers, giving from eighteen to twenty-three quarts of milk per day.

"Rough on Rats." Clears out rats, mice, roaches, flies, ants, bed bugs, skunks, chipmunks, gophers. 15 cents. Druggists.

Notwithstanding much has been said about the importance of a blood-purifying medicine, it may be possible that the matter has never seriously claimed your attention. Think of it now! If, by the use of a few bottles of Ayer's Sarsaparilla, you avoid the evils of scrofula, and transmit a healthy constitution to your offspring, thank us for the suggestion.

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NOYES' HAYING TOOLS.

FOR STACKING OUT IN THE MORNING AWAY IN BARN. Save labor and money; simple, durable, cost but little. No trouble to get over high hills or through deep mud. Thousands now in use. Wood, Palmyra, Floor Hooks, etc., for circular and designs for stacking barns, to U. S. Wind Engine & Pump Co., Batavia, Kane Co., Ill. State where you saw this advertisement. m15c66t

IT WILL PAY YOU.

If you run a Mill or Reap, to purchase a reliable saw, and one that will pay you for itself, send for our circular, and we will send you a reliable saw, and one that will pay you for itself. Send for our circular, and we will send you a reliable saw, and one that will pay you for itself. Agents wanted for all territories. POWELL & DOUGLAS, 115-16 Main St. of Chicago, Wis., Ill.

SAMARITAN NERVE
NEVER FAILS.
THE GREAT NERVE CONQUEROR.

A SPECIFIC FOR

EPILEPSY, SPASMS, CONVULSIONS, FALLING SICKNESS, ST. VITUS DANCE, ALCOHOLISM, OPIUM EATING, STYPHILIS, SCROFULA, KINGS EVIL, UGLY BLOOD DISEASES, DYSPEPSIA, NERVOUSNESS, SICK HEADACHE, RHEUMATISM, NERVOUS WEAKNESS, NERVOUS PROSTRATION, BRAIN Worry, BLOOD SORES, BILIOUSNESS, COSTIVENESS, KIDNEY TROUBLES AND IRREGULARITIES. \$1.50 per bottle.

For testimonials and circulars send stamp. The Dr. S. A. Richmond Med. Co., Props., St. Joseph, Mo. Correspondence freely answered by Physicians. Sold by all Druggists.

ZOA PHON
Began life 12 years ago under the name of WOMAN'S FRIEND. Without puffery, simply on the good words of those who have used it, it has made friends in every State in the Union.

NOT A CURE ALL But a gentle and sure remedy for all those complaints (no naming needed), which destroy the freshness and beauty, waste the strength, mar the happiness and usefulness of many.

Girls and Women. Sold by all Druggists. "Diseases of Women and Children" sent gratis. Every woman, especially Mothers, should read this. Address: P. PENNINGLY, M. D., 116 Walnut Street, KALAMAZOO, MICH.

A Splendid Latest Style Chrome cards, name, 10c Premium with Spoons, E. H. Pardee, New Haven, Ct.

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For the prevention and treatment of Diphtheria, Scarlet Fever, Small Pox, Yellow Fever, Malaria, etc., etc.

The Free use of the Fluid will do more to arrest and cure these diseases than any known preparation.

Darby's Prophylactic Fluid.

A safeguard against all Pestilence, Infection, Contagion and Epidemics.

ALSO AS A GARGLE FOR THE THROAT, AS A WASH FOR THE PERSON, AND AS A DISINFECTANT FOR THE HOUSE.

A Certain Remedy Against All Contagious Diseases.

Neutralizes at once all noxious odors and gases, destroying the germs of disease and septic (putrescent) floating imperceptibly in the air, such as have effected a lodgment in the throat or on the person.

Perfectly Harmless used Internally or Externally.

J. H. ZEILIN & CO., Proprietors, Manufacturer, Chemists, Philadelphia, Pa.

Price 50 cents per bottle. Pint bottles \$1.

THE MILD POWER CURES.

HUMPHREYS' HOMOEPATHIC SPECIFICS.

In use 37 years.—Each number the special prescription of an eminent physician.—The only simple, safe and sure relief for the people. PRICE PRINCIPAL NOS. CURES. PRICE.

1. Fever, Congestion, or Tendency of Inflammation. 25
2. Worms, Worm Fever, Worm Colic. 25
3. Colic, or Tendency of Inflammation. 25
4. Diarrhea of Children or Adults. 25
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7. Coughs, Cold, Bronchitis. 25
8. Asthma, Whooping Cough, Sore Throat. 25
9. Headaches, Sick Headaches, Vertigo. 25
10. Stomachic, Indigestion, Flatulency. 25
11. Suppressed or Painful Periods. 25
12. Whites, or Frothy Discharges. 25
13. Group, Cough, Difficult Breathing. 25
14. Hoarseness, Sore Throat, Stomachic. 25
15. Rheumatism, Rheumatic Pains. 25
16. Fever and Ague, Chills, Fever, Ague. 25
17. Piles, Hemorrhoids, or Bleeding. 25
18. Catarrh, or Chronic, Influenza. 25
19. Wandering Gout, Violent Cough. 25
20. General Debility, Physical Weakness. 25
21. Nervous Debility. 25
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Sold by Dr. Humphreys' Book on Disease, etc., and by all Druggists.

Price 50 cents per bottle. Pint bottles \$1.

DRY GOODS.

Delivered in any part of United States on Railroad, or by Express, and when desired samples of Dress Goods, Silks, Woolens, etc., sent by mail. Write to stock in this country. Write to

BY MAIL. Jordan Marsh & Co., Boston, Mass.

Salt in Agriculture.

STATE AGRICULTURAL COLLEGE, Lansing, Mich., Dec. 3, 1879.

E. S. Fitch, Bay City, Mich.

Dear Sir:—The specimen of Refuse Salt you forwarded me from Bay City has been analyzed and gives the following result:

Chloride of Sodium..... 87.74 per cent.
Chloride of Potassium..... 2.49
Sulphate of Lime..... 1.65
Carbonate of Lime..... 40
Carbonate of Magnesia..... 35
Oxide of Iron..... 6.28
Water..... 8.28

Fine Salt of the salt works consists essentially of Chloride of Sodium, containing but a very small amount of sulphate of lime and magnesia, and only traces of Chloride of Potassium and Oxide of Iron. For manure purposes the Refuse Salt is more valuable than pure common salt, because it contains a large percentage of Potash Salt, which is one of the

Horticultural.

Enemies of the Squash.

The New York Times says: "The enemies of the squash are numerous. It is too often supposed that the 'squash-bug,' as it is called, does all the mischief inflicted upon this plant. But there are at least four different insects—one bug, two beetles, and a moth—which prey upon the vine. There are some mistakes, too, in regard to the habits of these insects, which are based upon very incomplete observations. The writer has grown squashes for several years past with a view to investigating the habits of these pests. The worst of all is the vine-borer, which lays its eggs upon the vines near the joints, and not only near the roots, as stated in some works on entomology, the larva bores into the vine and eats out the heart, which causes the leaves to drop and die. The moth is related to the currant borer, the peach borer, and other borers. It is orange and black in color, and goes to work in the afternoon near sundown. To prevent damage from this pest the soil should be richly manured, the vines covered with soil at every joint where new roots will form, and may also be brushed over with a paste of cow dung. When the worms are in the stems, their whereabouts may be found by a scar at the place of entrance. If the vine is carefully slit with a pen-knife on one side, the grub may be taken out and killed, and no harm will be done to the vine, if it is covered with soil. The next worst pest is the ash-grub, which sucks the sap from the stem of the vine near the root, and also from the ribs of the leaves on the under side. It lays its eggs on the under side of the leaves and also on the stem. The young grubs feed on the under sides of the leaves, and young and old may be seen feeding together at times. This pest must be caught and killed. It is useful to heap soil around the stem, wholly covering it, and spraying Paris green or cayenne pepper water upon the leaves on the under side. Corn-cobs steeped in gas-tar and laid under the leaves will keep them away by its strong scent to some extent. Another pest is a species of ladybird, which, however, differs in its habits from the ordinary kinds in feeding upon the leaves, but in its larva and mature state. It is about one-fifth of an inch long and oval, of a greenish color, with 15 black spots. The larva are hairy grubs which eat the leaves on both sides, leaving a network of fibers only behind them. This may be *Mysis quingue-decem punctata*, of which no complete history is given in any work upon entomology. Or it may be related to *Diabrotica duodecim punctata*, which is said to injure the leaves of the dahlia. The fourth and last is the well-known striped squash beetle, yellow and black in color. This eats the stem near the root below the ground and above it. It may be destroyed by spraying the stem of the squash with Paris green, and perhaps covering the stem wholly with a hill of soil. With all these pests, every one of them very active and persevering in their occupation, it is only by the exercise of constant and close vigilance that one can grow squashes in localities where they abound."

Supporting Grapevines.

An Ohio horticulturist gives the following plan of preparing supports and training grapevines: Set a post of good material in the ground, two-and-a-half or three feet—three feet out—say, four feet from the vine root. If the vine is a variety of thrifty growth it will require two posts two or three feet apart. Bolt to the posts in the ground a scantling of any desirable height—eight feet or more—with a bolt near the top of said post. When the vine has attained sufficient length, cut a notch in the scantling above the top of the post large enough for the vine, and put the vine in and nail a piece of lath over it; then, after it has attained sufficient length, bend it at the distance of two or three feet, and bring it back through another notch, and so on until you fill up the post, putting them some 20 or 24 inches apart. If it is thought best to use two posts, nail a piece of fence board from the top of one post to the other. The advantages are: 1. It makes the vine its own trellis. 2. To trim the vine or pick the fruit set a trellis, pull out the lower bolt and turn it down on the trellis, and it is easily got at. 3. If desirable to have the lower buds start their growth first (as the upper ones generally outgrow the lower ones), pull out the lower bolt and leave the vine on the ground until a sufficient advance is made. 4. If desirable to sulphur or smoke for mildew, with other material, it can be more easily done if turned down on the trellis. 5. If the vine is a tender variety, by taking out the upper pin and laying the vine on the ground it can be covered by some material that will protect it from the severe exposure. 6. If a night of frost appears to be coming after the buds have started, by laying the vines down and covering with carpet or other materials they may be protected. 7. If it is desirable to grow a number of layers from a vine by laying it flat it gives a superior opportunity. I believe there are advantages in it that are desirable, and that may make the growing of tender varieties a better success.

Destroying Cut Worms.

"Truck Farming at the South" treats at some length of the ways to subdue this foe to young plants, and says: "The grower of cabbages, tomatoes, etc., on a small scale, can readily protect his plants from cut worms by surrounding their stems with paper for a short distance below and above the surface, and leaves have been used for the same purpose. Hills of melons, cucumbers, etc., may have the plants surrounded by a hoop or other barrier. Another method, useful in small gardens, is to make holes in the soil near the plants, singly by means of a small stick, or in clusters, by means of an implement which will make several holes at one operation. The worms hide in these, where they may be

killed the next morning by the use of the same stick or implement. But the fields of the truck farmer contain so many plants that any remedy, to be practicable, must be more general in its application. Dr. Oemler finds it the best plan to clear the land of cut worms before the seeds are up, or before the plants are transplanted. By placing cabbage leaves and bunches of grass along the rows of hills of about a fourth of an acre of water melons, and examining them daily, he captured fifteen hundred and thirty-eight worms, before the seed came up, and lost but a single melon plant by the worms. He once captured fifty-eight worms under a single turnip leaf. His present method is to poison the worms. After the land is prepared for cabbage or any other crop liable to be injured by the cut worms, he takes cabbage or turnip leaves and dips them in a bucket of water into which a tablespoonful of Paris green has been well stirred; or the leaves are first moistened and then dusted with a mixture of one part of Paris green to twenty of flour. The leaves thus poisoned are laid in rows across the field, 15 or 20 feet apart, and at the same distance in the rows, being careful to place the dusted surface next to the ground. By repeating this at intervals of three or four days, the field is cleared at less expense and trouble than by any other method. There are several insect enemies, parasitic and others, that help keep cut worms in subjection, and the mole probably destroys many. Birds are useful, and domestic poultry may be serviceable in destroying them."

Why Timber Growing Does Not Pay.

The Rochester Post-Express takes the following view of the problem of forest-growing, which it says is "talked to death." That journal says: "We do not believe that for the majority of Eastern farmers, tree planting for profit except on land too rough or unsuitable for cultivation is at all advisable. It is true, dense forests of valuable wood are now worth in many sections more than the best cleared and fenced farm of equal area; but it is often forgotten how many years this value has been accumulating. The statement is sometimes made that the early settlers of Western New York widely mistook in clearing so much of the original forest as they did, that the timber left to stand would now be very valuable, and would have cost little or nothing. But this view overlooks several important considerations. If all or most of the original forest were now standing where would be the demand to make it valuable? There is also the loss of interest on land and taxes, which in the course of sixty or seventy years that much of the forest has been cleared is an important item. Interest counts up wonderfully fast, as any one soon learns who has to pay it. When Columbus discovered America he undoubtedly thought he greatly benefited the world, as he undoubtedly did. But a careful investigator has estimated that the expenses of his expedition, if put at interest and compounded annually for the three hundred and ninety-one years since America was discovered, would amount to more than the value of all the real and personal property on the two continents. Leaving the original forest uncut, as some say should have been done, is open to the same objection. What the land would produce, and its value as cleared land, if put at interest, would unquestionably amount to more than the value of the original forest if left till now. "How can a farmer in Western New York afford to devote land worth one hundred dollars per acre to growing trees? The interest on this is six dollars per year, besides taxes. In the meantime the farmer and his family must live, and if a considerable part of his arable land is devoted to tree growing, the remainder must be correspondingly straightened and economical. Trees do not grow without robbing the soil. In the original forest falling leaves kept up enough fertility, and perhaps slowly increased it. But if a forest is planted on an exhausted field it must be brought into fertility again by manure before the trees will make a satisfactory growth. What farmer has or can afford to buy manure for trees from which he cannot get money returns under ten or fifteen years? In our experience, manuring, for even one year ahead, is a longer time than most farmers can afford to wait. With the use of commercial fertilizers, for which two or three months' credit is customary, many farmers argue that they pay better on spring grass than on winter wheat, because the crop can be harvested and sold with less delay after the fertilizer comes due; who, then, can afford manure for trees to be sold for wood? Certainly not farmers whose land is worth even half one hundred dollars per acre. "That there are occasional instances of profitable tree planting, does not disprove the general rule to the contrary. Rightly conducted under favorable conditions, there is profit in all labor. But the gains from successful growing of trees for wood alone are much less than for trees bearing fruit. A very little consideration will convince any one of this, and it is confirmed by experience of many fruit-growers. Instances are not infrequent of more money being received yearly for fruit, for many years in succession, than the balance of the land occupied. It is the business of the farmer to coin wealth from the soil, not by leaving it in a state of nature; but by applying intelligent labor to its cultivation. If then we are told, as has sometimes been done, that trees once planted will grow and make their owner rich without further care, we may dismiss the story as an absurdity. The less labor required in producing any crop the smaller will be the profits. The rule is invariable, and to put more rather than less labor on his land should, therefore, be the aim of every intelligent cultivator. "There is another side to this question, as will be observed in the accounts of recent severe losses by floods in Pennsylvania, Ohio and Kentucky. These floods are undoubtedly in part the result of too extensive clearing away of the forests in the region where the Ohio river origin-

ates. It may not pay individual farmers to grow trees for timber, but the usefulness of forests as a means of promoting general prosperity of farmers cannot be successfully denied. Fortunately there is broken land enough, of little value for farm purposes, that can be devoted to this use, and if not immediately profitable, its withdrawal from cultivation will cause little loss."

The Osier Willow.

A North Carolina paper publishes a long article on the advantages to be gained by utilizing large tracts of land, now worthless for agricultural purposes, by planting them to osier willows. We take the following on their culture from it:

"Nothing could be simpler or easier than the culture of the osier willow. All that is necessary to be done is to clip from a tree as many twigs, limbs or branches as may be desired, stick the same in the ground, press the earth around them and leave them to paddle their own canoe. If the soil be damp, the cuttings will take root in three days' time, will grow off at once, and by July or August (if planted in the spring) will have attained the height of several feet.

"This growth is cut off close to the ground with a sharp reaping hook or scythe, and the long keen switches, after having the bark peeled off, may be tied in bundles like wheat, and are then ready for market.

"These green willow switches are worth in New York about fifty dollars a ton. There is a steadily increasing demand, and each year the prices range higher than the year previous.

"It is difficult to tell how many tons may be raised to an acre, that depending, of course, on how close together the cuttings are planted, and also upon the adaptation of the soil; but we feel safe in saying that after the osiers have become well rooted, quite twenty tons may be cut from a single acre.

"Nor does the advantage of this crop end here. Remember that all that is necessary to be done in getting 'a stand' of willows is to stick the rootless nuclei into the ground, after which they need no further care. Then bear in mind that the work of planting or setting out is done, for the more it is cut off, the more it springs up in another place and grows, as if determined not to be conquered. When the osier willow once takes root, it has it for all time and it is next to impossible to eradicate it from the soil."

Horticultural Notes.

Small fruits are not yet exported in a fresh condition, but it is thought that grapes can be profitably raised for export.

It is said that saturating the bag containing seed beans with coal oil exterminates the bean weevil, but does not harm the beans in the least. Probably the same treatment would serve with infested peas.

STAINED berry boxes may be whitened by submitting them, in close confinement, to the fumes of burning sulphur. They should be first moistened. Those having ardy-house will find that a suitable place for the bleaching.

A GENTLEMAN who wished to sprout grape seeds, put the seed in nearly boiling water and kept the water warm four days; then planted them in a tin can and watered them when needed with warm water. They sprouted after 8 days.

PEAR slugs feed on the epidermis of the leaves, and live on the ribs of the leaf. The following year the tree will not bear a full crop. Dry dust or powdered lime thrown on the leaves, or sulphur and powdered lime destroy them. Thorough washing with whale-oil soap and sulphur is best.

THE "prince of Colorado fruit growers," Jesse Frazer, buys concentrated lye by the cask and putting a can of it in two and a half gallons of water, with a gunny sack may wash the trunks and large limbs of all his trees, which removes scales, destroys the eggs of all insects, and softens the bark so it can expand without cracking.

In setting an orchard it is well to get it on upland, not only on account of better drainage, but also because trees set on alluvial soil make a growth of wood and leaves rather than fruit. On low ground the fruit will often be large, but not so well colored or highly flavored as on upland, where the wood growth is smaller and both leaves and fruit have a fuller exposure to the sun's rays.

If a young seedling or cutting of any soft-wooded plant is to be bushy it must have its top tipped out by the thumb nail or pruning scissors at a very early stage, and this stopping must be repeated frequently. If what is called a well-furnished plant is required, an average of from two to three inches is all the extension that must be permitted before the top is tipped out, and this must be continued until the desired size is attained. Then generally the plant is allowed to away till bloom or blooming sheets are developed.

In Georgia, where watermelon culture is made a specialty, it is the general practice to turn the vines back, even when two to four feet long, to plow the land. This is believed to be no injury at all if carefully done, without twisting or breaking. The idea seems to be to literally turn the vines back, and not to pull them to one side; and after the plowing is done carefully replace the vines in their original position. One prominent grower has removed vines with melons a foot long on them, and found no permanent ill effects.

MATTHEW COOK, of California, in an address on the subject of insect pests says in reference to the woolly aphid, which he charges with raising ten broods in a year, the tenth numbering one quintillion, that coal oil is effective, but not safe for the tree. A tobacco decoction at 130 degrees temperature on application is effective. A trench about the tree, with lime in it to slack in water, and then be covered up with earth, is said to be a safe remedy. For the apple leaf louse he recommends an alkaline solution of concentrated lye, one pound to a gallon of water.

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Apianian.

Queen Rearing.

Mrs. L. Harrison, in the *Prairie Farmer*, gives her views on the *modus operandi* of queen-rearing:

"Persons who have kept bees for any length of time have noticed that some colonies, whose conditions are the same as the remainder of the apiary, produce more honey than others. These colonies are the ones to breed from, if honey is the object in view. If a colony is deprived of its queen, in six hours the bees will be constructing cells to raise another. Worker eggs, or larvae not over three days old, are used for rearing queens. Some breeders claim that the best results follow when the bees have access to eggs only. Bees seem to prefer to raise queens on new white combs; such an one should be given to the breeding colony, and placed in the centre of the hive; holes might be cut in it, making convenient edges for the bees to attach their queen-cells, so that they can be easily removed, if desirable to do so. On the third day this comb should be given to queenless bees, and they will immediately commence enlarging cells. On the twelfth day, if it is desirable to preserve the queens, all cells should be removed but one, as the first one that emerges will destroy all rivals. Those who make a specialty of rearing queens, remove the frame to an incubator and examine it, often removing the queens to a nucleus, as fast as hatched. Those who have not a convenience of this kind, can cut out the cells, and give them to nuclei, previously formed long enough to have cells of their own. We have had cells destroyed by giving them to newly formed nuclei, but never lose them if they have cells of their own. To save the time of inserting cells, we often wait until the bees have eaten off the outside covering, showing that the queen will soon be out, and then remove the cell with adhering comb, so that it will fit between the frames of honey, placing point downwards, and in a short time the queen is out. We preserve cells with variations; sometimes we place them over cages, similar to a cover of a tin pepper box, only the tops are of wire cloth; and again cut out cells and put them into cages (made of wire cloth by rolling around the broom handle, with stoppers in each end), and place them in the cluster. If young queens are introduced, when they are only a few days old, they are generally well received."

Use of the Extractor.

A. W. Stith, in the *Bee Journal*, says: "The idea that honey extracted before being capped by the bees, has all the good qualities of honey that is capped before extracting, does not meet my approval. I am so thoroughly convinced that honey extracted while green, is inferior to honey capped before extracting, that I do not expect to extract any more green honey, unless in cases of emergency, when bees are gathering rapidly and have not sufficient combs to store their precious sweets; and right here let me say, that a too free use of the extractor is one reason why many beekeepers complain of not having surplus combs. All apiarists know that bees will not build comb, to any great extent, only as instinct teaches them it will be used for storing honey; therefore, beekeepers should not expect their bees to build comb, and at the same time keep the combs they already have empty, by the use of the extractor.

"The judicious use of the extractor is more than merely to learn how fast you can sling the honey, and leave the bees to starve the following winter! While I am free to admit that the extractor is indispensable in an apiary, I do think that, all things considered, extractors kill as many bees as they help to produce.

"Do not understand me to accuse an experienced bee-keeper of such blunders as to kill bees in such a manner, but as there are many persons just embarking in the business, I thought a word of caution would not be out of the way and may be appreciated."

Substitute for Pollen.

G. W. Demaree says, in the *American Bee Journal*:

"I have noticed, this spring, that our bees have sought, with more than usual diligence, for a substitute for pollen, and I have found, to me at least, a new and very superior substitute for that essential article to brood-rearing. Our stock breeders feed to their cattle, especially to milk cows at calving time, 'oil cake meal.' While feeding some of this glutinous meal to my milk cow, I noticed that the bees had passed the several boxes of unbolted wheat and rye flour, and were swarming in the trough where this oil cake had been fed. I at once took the hint, and mixed some of this meal with the unbolted flour, in one of the several boxes which were being visited by the bees, and in a short time this box swarmed with a scrambling mass of workers, who loaded up and bore away their loads with the greatest eagerness. After trying it, I believe it to be the greatest stimulant, next to natural pollen, to early breeding, yet discovered. And I further believe, from the medicinal qualities of the 'oil cake meal,' it can be given to bees which have suffered from long confinement and dysenteric troubles, with the best of results. Of course I mean after they begin to fly in the spring of the year. I have been long of the opinion that the trouble called 'spring dwindling' is caused by long confinement and consequent exhaustion of vital powers. Of course, to restore such bees to health would lengthen their days."

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The well-known writer on the *Boston Herald*, B. W. Ball, of Rochester, N.H., writes, June 7, 1882: "Having suffered severely for some years with Eczema, and having

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The Michigan Farmer

State Journal of Agriculture.

DETROIT, TUESDAY, MAY 15, 1883.

WHEAT.

The receipts of wheat in this market the past week have been 54,773 bu., while the shipments were 53,533 bu. The visible supply of this grain on May 5 was 20,707,249 bu. against 10,313,906 bu. at the corresponding date in 1882. This shows a decrease from the amount in sight the previous week of 74,662 bu. The exports for Europe for the week were 594,897 bu., against 1,019,920 bu. the previous week, and for the past eight weeks 8,046,911 bu. against 4,632,118 for the corresponding eight weeks in 1882. The stocks in this city on Saturday amounted to 1,083,034 bu., against 1,094,450 last week, and 73,857 bu. at the corresponding date in 1882.

There has been but little fluctuation in wheat values the past week, and both cash and futures at the close of the week were firm and a shade higher than at the opening. The continued cold weather, coupled with reports of considerable damage to the winter wheat in some of the great wheat growing States, have given sellers the advantage, and until more settled and seasonable weather prevails they will probably maintain it. Yesterday the market was stronger at the opening at a slight advance over Saturday's rates. Later this was lost, and closing prices of cash wheat were almost identical with those of Saturday.

The following table exhibits the daily closing prices of wheat from May 1st to May 14th:

	May 1	May 2	May 3	May 4	May 5	May 6	May 7	May 8	May 9	May 10	May 11	May 12	May 13	May 14
No. 1	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2
No. 2	1.07 1/4	1.07 1/4	1.07 1/4	1.07 1/4	1.07 1/4	1.07 1/4	1.07 1/4	1.07 1/4	1.07 1/4	1.07 1/4	1.07 1/4	1.07 1/4	1.07 1/4	1.07 1/4
No. 3	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8
No. 4	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8
No. 5	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8
No. 6	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8
No. 7	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8
No. 8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8
No. 9	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8
No. 10	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8
No. 11	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8
No. 12	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8
No. 13	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8
No. 14	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8	1.07 1/8

Rejected stock at 70c per bu., one week ago at 75c.

In futures June and July have declined slightly, while August has not only remained firm but advanced. The following table will show the fluctuations from day to day in the various deals of the past week:

	May 1	May 2	May 3	May 4	May 5	May 6	May 7	May 8	May 9	May 10	May 11	May 12	May 13	May 14
Tuesday	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2
Wednesday	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2
Thursday	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2
Friday	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2
Saturday	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2
Sunday	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2	1.07 1/2

As the whole future of the market hinges on the prospects of the coming crop, we give below the May returns to the Department of Agriculture, which show a material decrease in the prospective yield of the crop in New York, Michigan, Ohio and Illinois. The report says:

"The average is 77 for New York, Michigan 83, Ohio 62, Illinois 66. Further loss is suffered by the plowing up of large areas in Ohio and Illinois. A reduction in Missouri from 83 to 80 is also reported. In Indiana the condition averages 75 and New Jersey reports 101, both the same as in April. All the remaining northern States show an improvement since the April report, as well as the Pacific coast and nearly all the Southern States. These averages are: Connecticut 90, Pennsylvania 85, Delaware 85, Maryland 90, Virginia 97, North Carolina 96, South Carolina 93, Georgia 97, Alabama 96, Mississippi 92, Texas 87, Arkansas 86, Tennessee 87, West Virginia 90, Kentucky 81, Kansas 91, California 77, Oregon 73. This is an improvement of 15 points in California and 17 in Oregon. The average condition of winter wheat is 83 1/2 against 80 in April. The loss in area from replanting in other crops may be assumed to reduce the prospect to that of April 1. In 1879 and 1880 the general average was 86. In 1881 it was 85. In 1882 it was 102. In May last year 100. Ohio and Illinois reports compare with last year's crop thus: Ohio reports 86 for May compared with 1882, and 62 compared with the average crop."

"The spring wheat area will not be complete till May 15, and will be reported June 1. The statistical agent for Dakota makes probable increase 30 per cent. The agent for Minnesota reported 86 per cent of last year's area already planted. An increase of 15 per cent is reported in Washington territory. It is not probable that the increase in the spring wheat area will more than make good the loss of the winter wheat acreage. Without regard to the spring wheat breadth, the present prospect for winter wheat area in consideration of reduction in area and acreage is 30 per cent less than in May last, representing a loss of about 77,000,000 bushels."

Latest reports from Europe state that with reduced acreage in western Europe and some injury from freezing in March a reduced crop seems inevitable. In Austria and Hungary the prospect is favorable for at least a medium crop.

The following table shows the prices ruling at Liverpool on Saturday last, as compared with those of one week previous:

	May 12	May 13	May 14	May 15
Flour, extra State	12s. 0 d.	12s. 0 d.	12s. 0 d.	12s. 0 d.
do. white, No. 1	11s. 11 d.	11s. 11 d.	11s. 11 d.	11s. 11 d.
do. white, No. 2	11s. 10 d.	11s. 10 d.	11s. 10 d.	11s. 10 d.
do. Spring No. 3	11s. 9 d.	11s. 9 d.	11s. 9 d.	11s. 9 d.
do. Western, now	11s. 8 d.	11s. 8 d.	11s. 8 d.	11s. 8 d.

CORN AND OATS.

The receipts of corn in this market the past week amounted to 10,518 bu., and the shipments were 11,399 bu. The visible supply in the country on May 7 amounted to 16,168,998 bu. against 8,897,941 bu. at the same date last year. The export clearances for Europe the past eight weeks were 11,994,630 bu., against 2,591,947 bu. for the

corresponding eight weeks in 1882. The visible supply shows a decrease during the week of 775,838 bu. The stocks now held in this city amount to 23,616 bu., against 27,732 bu. last week, and 33,341 at the corresponding date in 1882. The market is very quiet, but seems well sustained, and values are stronger than a week ago. Prices are 60c per bu. for high mixed, 59c for No. 2, 58c for new mixed, and 58c for rejected. The Chicago market is firm and higher, with cash No. 2 quoted at 55c per bu., and May delivery at 54 1/2c. In other futures, June is quoted at 54 1/2c, July at 54 1/2c and August at 54 1/2c. The continued cold weather, with the heavy falls of rain of the past ten days, have interfered materially in the preparation of ground for corn, and will in some localities result in less being planted. With a late fall, however, which generally follows a late spring, corn planted before the 5th of June in this latitude is sure to mature with a favorable season, so that it is yet too early to make any estimate in regard to the corn crop. The late season, however, is strengthening holders in their views. In Liverpool the market is quoted firmer, at 5s. 11d. per cental for old mixed, and 5s. 10d. for new do., an advance of 3d per cental on new mixed as compared with one week ago.

The receipts of oats in this market the past week were 14,806 bu., and the shipments were 1,600 bu. The visible supply of this grain on May 7 was 4,467,143 bu., against 2,063,033 bu. at the corresponding date in 1882. Stocks in this city on Saturday amounted to 34,299 bu., against 31,918 bu. the previous week, and 13,573 bu. at the same date last year. The visible supply shows a decrease during the week of 13,943 bu. The market showed some signs of weakness toward the close of the week, and sellers offered No. 2 mixed at 44c per bu. without finding purchasers. For No. 2 white 47c per bu. is quoted. In Chicago there is a fairly active market at 44c per bu. for cash No. 2 mixed, a slight advance over rates of one week ago. In futures May delivery is quoted at 45c, June at 44 1/2c, July, 43c, and August at 43c. In New York the market is reported steady and fairly active at the following range of quotations: No. 3 white, 51c; No. 2 white, 52 1/2c; No. 1 white, 55c; Western white, 52 1/2c; State white, 55 1/2c; No. 2 mixed, 49c; No. 1 mixed, 49c; Western mixed, 47 1/2c; No. 2 Chicago, 50c per bu.

HOPS AND BARLEY.

The hopes of the holders of hops appear to have been ill-founded, and the big jump prices were to take about this season has not yet occurred. On the contrary, prices are lower and weaker than for any time during the past six months. Whether a reaction may be looked for before the present season is over is problematical, as the reports of increased acreage and the prospects of an immense crop are likely to keep the market weak. There have been less hops used the past season by brewers, most of them no doubt finding cheaper substitutes, although there is not one in the business who would not emphatically deny the charge. The eastern markets, both in New York City and in the interior, are dull and drooping. The Commercial Bulletin says:

"There is a little more business doing on the basis of 80c cash 'on the market,' and 85c to brewers for fine goods. The trade is almost wholly in small lots, however, and the market without indications of a positive change for the better."

Quotations in the New York market are as follows:

	May 1	May 2	May 3	May 4	May 5	May 6	May 7	May 8	May 9	May 10	May 11	May 12	May 13	May 14
N. Y. State, crop of 1882, choice	80 1/2	80 1/2	80 1/2	80 1/2	80 1/2	80 1/2	80 1/2	80 1/2	80 1/2	80 1/2	80 1/2	80 1/2	80 1/2	80 1/2
do. crop of 1882, medium	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2
do. crop of 1882, low grades	76 1/2	76 1/2	76 1/2	76 1/2	76 1/2	76 1/2	76 1/2	76 1/2	76 1/2	76 1/2	76 1/2	76 1/2	76 1/2	76 1/2
do. crop of 1881, good to prime	68 1/2	68 1/2	68 1/2	68 1/2	68 1/2	68 1/2	68 1/2	68 1/2	68 1/2	68 1/2	68 1/2	68 1/2	68 1/2	68 1/2
do. old crop	66 1/2	66 1/2	66 1/2	66 1/2	66 1/2	66 1/2	66 1/2	66 1/2	66 1/2	66 1/2	66 1/2	66 1/2	66 1/2	66 1/2
Eastern, crop of 1882, fair to choice	72 1/2	72 1/2	72 1/2	72 1/2	72 1/2	72 1/2	72 1/2	72 1/2	72 1/2	72 1/2	72 1/2	72 1/2	72 1/2	72 1/2
do. crop of 1881, fair to choice	70 1/2	70 1/2	70 1/2	70 1/2	70 1/2	70 1/2	70 1/2	70 1/2	70 1/2	70 1/2	70 1/2	70 1/2	70 1/2	70 1/2
Pacific coast, crop of 1882, fair to choice	70 1/2	70 1/2	70 1/2	70 1/2	70 1/2	70 1/2	70 1/2	70 1/2	70 1/2	70 1/2	70 1/2	70 1/2	70 1/2	70 1/2

Barley was received here the past week to the amount of 9,636 bu., and the shipments were nothing. The visible supply of this grain in the United States and Canada on May 7, was 1,030,900 bu. against 991,695 bu. the previous week, and 414,443 bu. the corresponding date in 1882. This shows an increase in the visible supply during the week of 37,305 bu. The stocks held in this city on Saturday last amounted to 650 bu., against 1,890 bu. the previous week, and 957 bu. at the corresponding date in 1882. There is nothing doing in barley here, except to supply local demands, no shipments being reported the past week. Prices are nominal at about the same range as for the past month or two. Samples sent at all kinds of prices, ranging from \$1 1/2 to \$1 7/8 per cental, the latter rarely paid, as but few of the receipts will grade as choice. In the Chicago market barley is quoted dull and lifeless at about 80c per bu. for No. 2 western, and 55 1/2c per bu. for No. 3 do. In New York the market is quoted quiet and dull, at about the rates of a week ago. The outlook for any decided advance in values is not very bright.

DAIRY PRODUCTS.

The market is in better shape than for some time, the receipts and demands being very evenly balanced, and accumulations of old stock about cleared off. Prices rule very steady at 20c to 21c 1/2 lb. for choice selections, and 18c to 19c for fair to good lots. Creamery is firm at 26c to 28c 1/2 lb., and we saw some choice dairy butter, put up in attractive packages, going to a leading retail grocery house in the city, for which 35c 1/2 lb. was paid. Of course it was gilt-edged, and really looked good enough to eat. Other markets are not doing so well. In Chicago trade is reported dull and values weak, although on some grades prices are a shade higher than a week ago. Quotations there are as follows: Fancy creamery, 27c to 28c; fair to choice do., 26c to 27c; choice dairy, 18c to 21c; fair to good do., 16c to 18c; common grades, 13c to 14c. In New York the market is a shade lower than a week ago, but appears to be working into good shape. The Commercial Bulletin, in its review of the market, says:

"Butter on the whole has shown an easier tone. Demand was somewhat more cautious. Supplies came forward with greater freedom, especially of creamery, and receivers were compelled to modify extreme views in order to secure the attention of customers. The market, however, was not a positively weak one by any means, and the chances are that unless receipts pile up unusually full there

will be no serious shading on really attractive table stock for some time, as the careful management this spring has kept our market very well cleaned. Old stock is also in somewhat reduced supply, and it is hoped will soon all work out."

In that market quotations on new State stock are as follows: Fancy creamery, 29c; choice do., 27c to 28c; fair to good do., 25c to 26c; ordinary do., 17c to 20c; fancy tubs and pails, 25c to 26c; choice do., 23c to 24c; good do., 19c to 22c; and fair do., 16c to 18c 1/2 lb. Western has been very steady all week, at the same range of figures as reported in last issue. Quotations are as follows:

	May 1	May 2	May 3	May 4	May 5	May 6	May 7	May 8	May 9	May 10	May 11	May 12	May 13	May 14
Western imitation creamery	18 1/2	18 1/2	18 1/2	18 1/2	18 1/2	18 1/2	18 1/2	18 1/2	18 1/2	18 1/2	18 1/2	18 1/2	18 1/2	18 1/2
Western dairy, choice to prime	16 1/2	16 1/2	16 1/2	16 1/2	16 1/2	16 1/2	16 1/2	16 1/2	16 1/2	16 1/2	16 1/2	16 1/2	16 1/2	16 1/2
Western dairy, ordinary to fair	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2
Western factory, choice current makes	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2
Western factory, fair to good	14 1/2	14 1/2	14 1/2	14 1/2	14 1/2	14 1/2	14 1/2	14 1/2	14 1/2	14 1/2	14 1/2	14 1/2	14 1/2	14 1/2
Western factory, ordinary	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2

The market is quiet but firm at 13c to 14c 1/2 lb. for new full cream State stock, the latter figures only being realized for makes of popular and well known factories. Of old stock the supply is light, and values are firm at 16c to 17c 1/2 lb. for best makes of State. While the demand is by no means active, in fact hardly up to its usual record at this season, it seems quite sufficient to maintain prices at their present level. In Chicago

Poetry.

THE OLD WITCH IN THE CHIMNEY.

I live in a little old-fashioned house,
Brown and wrinkled and crabbed and low;
It's behind the age, you can easily see,
For the clocks are always slow;
The doors have each some trick of their own—
There's a turn of the wrist you can learn, if you
try.
But you ought to have lived in it all your life
To know it as well as I.
'Twas a moral squint in the builder's eye—
The panes in the windows are far too small;
There are twists in the floor; there are beams
In the ceiling and bumps in the wall;
There are queer little cupboard tucked away,
And the old brick oven, so long disused,
Would bake for a dozen men.
You may laugh if you choose, but I give you my
word
That doors will open with no one near;
In the dead of night there are noises heard
That, to say the least, are queer;
They may lay it all to a flapping blind,
Or the creaking limb of a door-yard tree,
But I know there's a spell on all these things,
And it will not let them be.
In a wide half circle on winter nights,
We draw our chairs to the glowing hearth,
When a weird, low call from the chimney's mouth
Strikes a cold across our mirth;
Mixed with sharp sleet and a whirling wind,
With the wild white storm we duly see,
In those winding alleys, steep and blind,
The old witch brews her tea.
'Tis the blackest draught that ever was brewed—
Black with bitter, strange herbs in the pot!
And it's stronger and stronger the longer it's
stood.
All seething and bubbling and hot:
The old crane smokes her old clay pipe,
And upward and outward curl the rings;
She steeps her tea, and she nods her head,
And the kettle sings and sings.
The snow puffs out at the window-pane,
And the cat purrs close to my ear;
I have curled myself up on the rug awhile
The purring flames to hear;
I heard the old witch crouching a song—
A song with a charm to keep;
It waked up things that had slept too long,
And it sent me fast asleep!

—Our Continent.

TO ONE WHO UNDERSTANDS.

The spring is here, and on the hill, to-day,
I saw the wind-dancer waiting for the May,
And budding roses seemed to beckon me,
And asked some tidings of the laggard bee.
But, though the old familiar things come back,
One sweetest thing of all the long days back,
I miss; those spring-time hours, in every place,
The sunshine of your true and tender face.
Dead, dead! I say, yet cannot understand.
I speak your name, and reach to touch your hand.
I touch but air. No words of answer come.
The lips I loved to kiss are cold and dumb.
Unseen, I feel you near me every hour,
It is as if the darkness hid a flower,
But seeing not, we know that it is there,
Because its fragrance sweetens all the air.
I stand beside your grave. "Dear heart," I say
"How far is it to Heaven? Oh, answer, pray!"
It cannot be so far, that world of God,
When heaven and earth are sundered by a sod!
So near I feel you, though I cannot touch
The loving hand whose clasp I miss so much,
I close my eyes, and lo! I have you here!
Oh, worlds apart, and yet so near, so dear!
Sweet rest and trust, sleep and dream of me,
And sweet as heaven may your still slumber be.
Upon your grave I lay some pansy buds,
And what they mean the heart beneath them
knows!

Miscellaneous.

A DRAWING-ROOM COMEDY.

Mr. Thomas Bilbury is the junior partner in the great firm of Bilbury, Blackthorne & Co., tea merchants of Calcutta and London. The senior partner is Mr. Joseph Bilbury, his father, who has a very nice house at Kew; and until within a year or two ago, there was a third member of the firm in the person of Thomas' uncle, Mr. Babington Blackthorne, the Calcutta representative of the establishment. But, unfortunately, Mr. Blackthorne, like many Englishmen who live in India, drank too much Scotch whisky and Bass' ale, and ate too many "Bombay ducks," the result being that at the age of 55 his liver declined to bear the strain put upon it, and collapsed, leaving its owner so weak and ill, that he had barely time ere he died to telegraph to his partners in England a brief notice of his impending fate. The alarming dispatch arrived at a particularly inopportune moment. Mr. Thomas Bilbury had on the day previous married a very charming young lady, Lydia Lapples by name; and the intelligence of his uncle's sad condition necessitated that the newly-made husband—who, by the way, had only been acquainted with his bride about six weeks before marriage—should without a moment's delay take the train for Dover, cross to Calais, and thence go by the quickest route to Calcutta. The affair was pressing. Mr. Blackthorne's death would certainly throw the business into confusion, and any hesitation on the part of the English partners might imperil the future of the firm.
"Go at once, my dear boy," wrote Mr. Joseph Bilbury to his son, who was in the Isle of Wight, "and send your wife to me. I will take care of her and see her settled in your new home at Richmond. I would go myself, but my gout won't allow me. And, above all things, take care of your liver."
There was no help for it. Mr. Bilbury, Jr., felt that he must go; so he did, putting the best face on the matter, and bidding a very long and tender good-bye to his poor little wife. He escorted her across to Portsmouth, put her into a London train, kissed her, saw her off, and then took the next train for Dover.
She settled down in her new home on Richmond Hill; and he for many months afterward worked hard at his desk in Calcutta, arranging the worldly affairs of his dead uncle and from time to time sending home reports of his progress, and love letters to Lydia.
Two years, in fact, elapsed ere he was able to return to England; and then he returned, as he had gone out, at a moment's notice. Unforeseen circumstances suddenly left him free, and, unwilling to lose a day, he took the first homeward-bound steamer, which, so it happened, was also taking to Richmond a letter,

written a few days earlier, in which Mr. Bilbury, among other matters, regretted to his wife that the pressure of business would not leave him at liberty for at least a month.

He traveled home without adventure, landed in due course at Dover, arrived in London late at night, and, without having written a word of warning to Lydia, hurried on next morning to Richmond Hill. Why he did not write or telegraph, we cannot say; perhaps he thought his sudden appearance would agreeably surprise his wife; or perhaps he was too excited to be able to think at all. But in any case, he neither wrote nor telegraphed a single word of preparation. It was a fine sunny morning in summer; Mr. Thomas Bilbury had scarcely seen his new home, which he had taken in a hurry immediately before his wedding; and he was walking eagerly up the short carriage-drive leading to the house, when, happening to cast his gaze toward the upper windows, he caught sight of a fair, white-draped figure, which was watering some flowering-plants that stood in a row on the sill. He at once recognized the figure as that of his wife, and was about to utter a cry of salutation, when he suddenly became conscious that she did not recognize him; for with graceful modesty, she withdrew from the window and disappeared as soon as she became conscious that he was watching her. An idea struck him. It was a foolish, but not wholly unnatural one. He would pretend to be some one else—a friend, say, of her husband's, and would ask to see her as such. Of course, she would at once recognize his voice; but then the surprise, and the consequent pleasure, would be the more complete if he thus deferred them. He knocked, therefore, at the door; and, to the servant who appeared, announced that he had just returned from India and desired to see Mrs. Bilbury. He gave no name; but he was admitted and shown into the drawing-room, where, in some perturbation of mind, he awaited the advent of the wife from whom he had been so long and so cruelly separated.

"I suppose that she will know me," he reflected, as he stood with his back to the window; "but it is true that I have grown a tolerably big beard since I went away, and that I have become considerably tanned. However, the beard ought to make no great difference. I suppose that she would know me if she saw me in my shirt-sleeves, or with both legs cut off at the knees. On the other hand, she thinks that I am still at Calcutta, for she must have had my last letter this morning. I hope my sudden appearance here won't upset her. I must be careful."
Here his thoughts were switched aside by the unmistakable sound of rustling skirts in the passage without; and as the door opened he involuntarily turned and gazed into the garden, at the same time coughed nervously.
"May I offer you a chair? I am afraid that you find the open window too much for you," said a soft voice behind him.
"O, no; not at all!" he returned, facing his wife for an instant, and then hastily resuming his survey of the garden.
Mrs. Bilbury did not in the least recognize her husband. "Do let me order a fire to be lighted," she urged.
"Oh, no; not for worlds!" ejaculated Tom, as he turned slowly round, conscious at last that even his nervousness was no excuse for his rudeness. "But the fact is Mrs.—"

"My name is Mrs. Bilbury!"
"Oh! thank you—yes! The fact is, Mrs. Bilbury, that I am not entirely reconciled to this abominable English climate. I—ah—that is to say, a man who has existed in groves of mango—ah—has lived on curry and chutnee—ah—with the thermometer standing doggedly at 102 in the shade, is—ah; but I daresay you understand."

"Oh, perfectly, Mr.—. I think I have not the pleasure of knowing your name."
"Who am I?" thought Mr. Thomas Bilbury. "My name," he said, after a slight pause, "is Tilbury."
"What a curious similarity," said his wife. "Yes; I can readily believe that people coming home from India, find this climate very trying at first even in summer. My husband writes that the heat in Calcutta has been excessive. Possibly, Mr. Tilbury, you may have called to give me some news of him? I hope so. I thought that his last letter was not written in very good spirits."

"That is satisfactory," thought Mr. Bilbury. "The lapse of two years has not altered her love for me."
"Yes," he said aloud. "I can give you some news of him, for a month ago I was at Calcutta."
"Indeed! How delightful!—Do sit down, Mr. Tilbury. It is very pleasant to meet any one who has seen my husband so recently; for I gather from what you say that you have seen him. How was he?"

Mr. Bilbury was by this time much exercised in his mind as to what to say next. On the one hand, he was afraid to declare himself, for fear of frightening his wife; on the other, he rather enjoyed the situation. He therefore determined, for the present, to retain his incognito.

"He was," he said, with deliberate hesitation, "as well as could be expected."

"As well as could be expected?" repeated Mrs. Bilbury with alarm. "Do you mean that he has been ill?"

"Well, not exactly ill," prevaricated Tom, who had not quite made up his mind as to what he should say.
"But I do not understand you. Tell me, please. What has happened to him?" Mr. Bilbury wondered what the end would be. He heartily wished that the end would be throwing his arms round his neck.

"Nothing very serious," he said. "I dare say he has told you that he has become very fond of tiger-shooting?"

"Ah, tigers! Tell me, Mr. Tilbury, tell me!"

"Well, he went out tiger-shooting one day as usual—ah—he was accompanied only by his servant. They entered the jungle! Suddenly, and without warning, a huge female tiger sprang upon your husband and bore him to the earth. Your native fled for assistance; help arrived;

and the victim was found faint from loss of blood, with his right arm torn out at the socket, his left eye destroyed, and the calf of his left leg—ah—deeply scored by the cruel claws of the ferocious monster."

"Dear me, how alarming!" commented Mrs. Bilbury; and the exclamation seemed so out of proportion to the gravity of the story, that Mr. Bilbury felt seriously disappointed. "That fully accounts," continued Lydia, "for his bad spirits. His right arm—"

"Yes, torn out at the socket, Mrs. Bilbury. He has learned to write with his left hand."

"Ah! dreadful. And his left eye destroyed?"

"Yes; he wears a glass eye, poor fellow!"

"It must be agony. And the calf of his leg deeply scored by the cruel claws of the ferocious monster! Terrible misfortune! And when you left him, Mr. Tilbury, how was he? Will he survive?"

A new light seemed to break upon Mr. Bilbury. Did his wife want him to survive? He felt by no means sure of it.

"It is impossible to say with certainty," he said; "but you must hope for the best. Let me beg of you, my dear Mrs. Bilbury, to keep up your spirits."

"Oh, Mr. Tilbury, I don't see why I should be miserable. There is very pleasant society down here at Richmond; and you know, there are as good fish in the sea as ever came out of it."

Tom's worst suspicions were by this time more than confirmed. "The heartless woman!" he thought. "This is how she receives the news of my being mangled and disfigured." But still, unwilling to give up hope, he continued aloud: "Poor fellow. I assure you that in his delirium your name was very often on his lips."

"Indeed! Then he had not quite forgotten me?"

"Forgotten you?" repeated Tom, his feelings for an instant getting the better of him. "Oh, no. I think that it is the lot of few women to have a husband so utterly devoted to her."

"And of few men to have a wife so charming," said Mr. Bilbury, finishing the sentence.

"Oh, Mr. Tilbury!—but excuse me. Of course you will stay to luncheon. Do; to please me. You know that a woman hates solitude little less than smallpox. One moment. I will just go and give the necessary orders." And Mrs. Bilbury rose and quitted the room.

"Well, this is awful," reflected her husband as soon as he was left alone. "She doesn't recognize me; and apparently she doesn't seem to care for me much."

His reflections were cut short by the return of his wife, who informed him that she had ordered some luncheon, and that he must meanwhile do his best to amuse her, as there was no one else in the house except the servants. This style of conversation made Tom more and more reckless; and at once he launched out on an account of an imaginary moonlight picnic at Aden, where—he let it so appear—he had broken the hearts of several charming girls and upon the whole had behaved in a highly reprehensible manner.

"It must have been very delightful," said Mrs. Bilbury. "I wish I had been there! Sometimes we have very pleasant evenings here. Of course, I know every one in the neighborhood; and, as a married woman, I ask whom I like to my house. You must come some night, Mr. Tilbury; and sup with us afterwards."

By this time Tom was perfectly frantic. "I'm afraid I shan't be here for long," he said bitterly. "I'm going abroad. I cannot rest anywhere."

"You are worried, I see," said Mrs. Bilbury. "I can sympathize with you."
"Yes, family matters and disappointments, you know."

"Disappointments! But you are young; and, if you will excuse me, not bad-looking. Perhaps you have merely lost your heart to one of the young ladies at Aden."

"Oh, no," he replied. "And, to tell the truth, I am doubtful whether any woman would be worth worrying about."

"Don't be cynical," said Mrs. Bilbury, with a smile. "Perhaps you expect too much from women."

"I expect sympathy, fidelity and consideration," answered Mr. Bilbury gravely.
"But, let me ask you, do you yourself indulge in those virtues? Ah! men are very inconsistent, I fear. However, I hope that you do not believe that women are bad as a rule."

"Well, I know to my cost that some are bad. Yes; some even betray their husbands."

"And in such cases I'm afraid that the husbands are also to blame."

"I don't think so," said Tom, curtly.
"But you are worrying yourself. I see, although you try to affect indifference. What is it?"

"Worrying myself? Not a bit," cried Mr. Bilbury.

"I am glad to hear you say so," returned his wife. "I don't worry myself. Cozy suppers and—"

"But the probable death of your husband," intercalated Mr. Bilbury.

"Oh, I am philosophical. We only lived together for two days; we only knew each other for a few weeks. What am I to him? What is he to me? Life is still before me."

"That is rather plain speaking," thought Tom. "I wonder whether she would like to get up a flirtation with me? I will draw her on a little."

"Ah!" he said aloud, "you have happiness within your grasp, and you can make another happy. It is not every man who is so fortunate as to meet with a woman like you. Now, I confess I have been unfortunate in my experience. But if I

thought that I might hope for your sympathy—"

"Surely, Mr. Tilbury; it would be unwomanly of me to refuse it."

Tom drew his chair nearer to that of his wife, and continued: "Oh, if I might hope for your sympathy, and look for your regard and pity, my dear Mrs. Bilbury, life, I assure you, would soon assume a new complexion to my eyes. Let us be plain. Can you not make me happy, and bestow your sympathy, your love and your pity upon one who will value such gifts at their true worth?"

Mrs. Bilbury, evidently agitated, arose. "Really," she exclaimed, "I was not prepared for all this. I feel the need of love, love such as yours; but—"

"And she buried her face in her hands."

"This," thought Mr. Bilbury to himself, "is my faithful and devoted wife!" yet he was unable to refrain from seating himself beside Lydia and putting his arm round her waist. "Dear Mrs. Bilbury," he said, "I love you! Do you, can you love me?"

She gave a scarcely perceptible gesture of assent, and Tom, now thoroughly convinced of his wife's untrustworthiness, sprang up and confronted her.

"Mrs. Bilbury," he said, "what would your husband say to this? You have disgraced him!"

She looked up and held out her hands imploringly.

"You are a vicious woman!" he continued, unrelentingly.

"Then why, just now, did you ask for my love?" she demanded.

"Because I wanted to assure myself that you were so vicious and worthless as I now know you to be. As for loving you—I despise you! Ah! if you were only a good woman!" And he approached her and took her by the hand. For an instant he stood thus; then he raised the hand and kissed it, and finally he kissed his wife on the cheek.

"Are you going, Mr. Tilbury?" she asked.

"Yes; I had better go; it is for the best. We could not be happy. Good bye!" He kissed her again and then moved slowly away to the door, where he stood, painfully regarding her.

"Good-bye!" she echoed. "But," she continued in another voice, "Tom?"

"Tom!" repeated Mr. Bilbury, starting and coloring. "Who told you my name was Tom?"

"You did, you foolish fellow, about two years ago."

"And you know me, Lydia?" he cried, as he quickly returned to her. "You have known me all along?"

"No; I did not know you until you told me that tremendous story about the tiger. There was no mistaking you then!"

By this time Mr. and Mrs. Thomas Bilbury were embracing each other so affectionately that the conversation was rendered very fragmentary and disjointed. It is therefore almost impossible to chronicle what they said, but it is certain that they forgave each other, and it is a matter of notoriety that there has since been no happier couple on Richmond Hill.

How Liquors are Adulterated.

A fresh barrel of raw whiskey is taken in hand by the expert, who converts it in a few hours into old rye or bourbon, by a judicious admixture of oak shavings, burned sugar and glycerine. Sometimes he takes away the crude taste by passing an electric current through it.

Much of the highest-priced whiskey sold in the best places is made in this artistic fashion. Bourbon is supposed to contain more fusel oil than rye, but this not necessarily the case.

Brandy is made by the distillation of fermented grapes—sometimes from the juice alone, and sometimes from the skins, seeds and juice together. When made from the juice alone it is nearly colorless, has a very agreeable odor, and slightly acid, aromatic taste. It contains from thirty-five to fifty per cent of alcohol.

There is probably no liquor so much imitated and adulterated as brandy. The commonest method of imitating it is by adding to plain grain whiskey certain proportions of various ethers, which are sold in mixture as "brandy essence," burned sugar, spices, tannic acid and acetic acid.

Nine-tenths of the brandy that is drunk never saw a grape skin. Gin is made by distilling alcohol with juniper berries, its distinctive taste and odor being due to the presence of a small amount of oil of juniper.

The amount of alcohol varies from thirty to forty per cent, the residue being water, with less than one per cent of the juniper oil. The gin commonly sold as the real article is, however, made by simply adding a small quantity of this oil, or more frequently oil of turpentine, to common whiskey, together with sufficient water to reduce the strength of the spirit to about thirty per cent of alcohol. None but the most expensive brands of gin are made in any other way. Different brands contain slight additions which give them their peculiar flavors.

The best rum is made by the distillation of fermented molasses. Often pineapples and other fruits are sliced and thrown into the still to give flavor. The molasses used consists of the washings and refuse from the sugar houses. It contains thirty to thirty-five per cent of alcohol, and is not much adulterated, except with certain flavoring ethers, designed to imitate "real Jamaica" or other brands. The main constituent of absinthe is oil of wormwood. It is made by the distillation of alcohol with water, absinthium (wormwood), and various spices, such as fennel, anise and coriander. The resulting liquid is diluted more or less, the various brands differing greatly in the amounts of water and other substances present in each. It is most frequently made by the simple mixture of oil of wormwood with alcohol and water, various essential oils being added to give pungency. Distilled absinthe, well prepared from fresh materials, should be of a bright green color. Its effects are well known to be of the most dangerous character, and result in nervous exhaustion and partial or complete paralysis of the heart.

CHEAPEST FASHION MAGAZINE IN THE WORLD, 120 large pages, four pages new music, 1,000 engravings each issue. Fifty cents per year; single copies, 15 cents. STRAWBRIDGES & CLOTHIER, 8th & Market Sts., Philadelphia.

Brice-a-Brac Manufacture in Connecticut.

A veteran New York dealer in brice-a-brac was interviewed the other day, as to bogus goods placed on the market, and told a curious story of some experience in Connecticut. His attention being called to a mummy case, he said:

"My partner bought that thing. It is a genuine Egyptian mummy case, made in good old Connecticut. When I entered the classic shades of Hartford last year, and pursued my way through innocent-looking hamlets to Fairfield and Saybrook in search of tall clocks and Puritan cabinet work, I perceived that the old State was not free from guile in matter of furniture."

"A Fairfield deacon brought forward a couple of chairs which he said had been in an old Connecticut family for three generations. He would sell the set, six in all, for \$125. While we were haggling, my man had been on a tour of inspection around the place. He soon breathed a few words in my ear, and business was closed abruptly. It appeared that the deacon's barn was half full of make-believe old furniture, which he regularly peddled out to summer visitors. The so-called relics which this wicked deacon spread before me were ingeniously deceptive. I saw imitation worm holes (bored with a gimlet) in his furniture; there were many indentations and false mendings, and the stamped brass mountings had been touched up with file and hammer to make them look as though made by hand. He had a cherry chest which I wanted to buy, until I saw that in the bottom was clinched in with the Malleable Iron company's patent horse-shoe nails. Of course he showed a venerable chair that Putnam had sat in—they all do that. The old general must have rested often in his remarkable career!"

"The mummy case?" Yes, I had forgotten. It is for a customer, and will stand in the corner of his library, labelled 'Rameses I.' I suppose. That man has a whole suit of plate armor of the eleventh century. Rare? Slightly. Plate armor did not come into use until the year 1300. Complete armor of even the fifteenth century is hardly to be found outside of the Tower of London. But the sheet-iron shops do a large business nowadays."

The Bayonet Question.

We perceive in a Washington paper that there is some talk in military circles of introducing a new style of bayonet into the army, says *Times* *Stiftings*. It is a painful thing to the soldier to have a new kind of bayonet introduced, particularly after he has become accustomed to the triangular, or trowel, bayonet heretofore in use. The short, broad, triangular bayonet has several advantages possessed by no other implement of death. After a hostile Indian, or any other foe of Uncle Sam's, has been bayoneted with the trowel bayonet, he may not like it very much at first, but he will never use any other kind in his family. In case of necessity, the trowel is intended to be used as an entrenching tool. If a company of infantry, armed with the trowel bayonet, is about to be attacked in a large open prairie, the soldiers can, in a few moments, throw up a breastwork almost as high as their heads.

Instead of doing away with the trowel bayonet, other weapons that might serve two or three purposes should be furnished our gallant soldiers. For turning flap-jacks the trowel bayonet has no rival. With the ordinary long, narrow bayonet the soldier cannot possibly turn his flap-jack without making a mess of it. In digging up mesquite roots for fuel on the boundless prairies of the west, the trowel bayonet is a perfect terror, so the soldiers say. Excellent as the trowel bayonet is, it might be improved somewhat. We think that a kind of combined battle axe and pitchfork bayonet might be invented. It should be somewhat after the style of these table knives made for one-armed men, with a fork on the back of the knife, with which to impale the chunks of beef that have been cut into by the blade of the implement. A weapon of this kind in the hands of our soldiers would be very effective.

It is also our opinion that a kind of combined spade and revolver, a kind of revolving spade, might be invented, that would deliver a dozen shots a minute, and dig up a ten acre field while it is being reloaded.

We have very little practical military experience, and merely call the attention of General Sherman to these suggestions in a casual, offhand sort of way. We do not wish to be understood as dictating to the military authorities.

A Modest Suggestion.

If the pious and scholarly State of Massachusetts, which puts so much Latin on every official State document, stamped upon by its great seal, would put a bottle of Hunt's Remedy on its seal instead, it would be briefer and answer every purpose. There is a vigorous arm with a sword striking Latin blows and an Indian shooting Latin arrows. But Hunt's Remedy does more than this. It strikes blows in Latin, English, French and German, and in every language, against the most insidious and deadly enemies of the human frame, and shoots destructive arrows into disease. It especially wages war against kidney diseases, so common to our afflicted humanity; and cures ailments of the kidneys, bladder, liver and urinary organs, and brings health again to the despairing. If Massachusetts doesn't wish to change its seal, Hunt's Remedy would be a significant design for the seal of some new State.

In clearing away the rubbish left by the destruction of the Eagle Hotel at Grand Rapids, the workmen found a pocketbook containing \$50 in greenbacks, \$4,400 in certificates of deposit and \$2,500 in bank shares; a diamond pin worth \$150, and a dress valued at \$100, all uninjured by fire, water or weather.

Nathan Knapp says: Gents—I have been troubled with rheumatism for several years to such a degree that I found it impossible to attend to my business, which is that of foundryman, and have been confined to the house and to my bed much of the time. Have tried all sorts of remedies and have been treated by several doctors, all to no purpose, until I finally heard of your Rheumatic Syrup, and was induced to try it, and I am very happy to say, after the use of a few bottles, I am as strong and as well as ever, and never feel a symptom like rheumatism any more. I can cheerfully recommend your Rheumatic Syrup to all afflicted with rheumatism, for it is certainly a most invaluable remedy, and too much cannot be said in its praise.

WOLCOTT, N. Y.

DETROIT, Mich., March 31, 1883.

DR. FENGELLY, Kalamazoo:

Dear Sir:—Some years ago I resolved never to give another testimonial respecting the merits of proprietary medicines, but the Woman's Friend, now Zee-Phos, is my friend because it has relieved my wife, in her last two confinements, of the untreatable agony which attended her first labor. She used the Friend for about one month previous to expecting confinement, and to use her own language, "would not be without it, under such circumstances, for the world."

J. H. P.

N. B. The above letter is from a prominent Michigan man. To any one wishing to write to him we will give his full address.

R. FENGELLY & Co.

MANCHESTER, Vt., Dec. 28, 1881.

I have used N. H. Down's Elfrin in my family for years, and for coughs, colds, croup and affections of the lungs always find it a sure and speedy remedy. It is not a humbug, like some of the advertised nostrums.

R. HOWARD, Judge of Probate.

BURLINGTON, Vt., Jan. 26, 1882.

I have used "Down's Elfrin" for many years, and regard it as a superior remedy for coughs and colds, one that I could not well part with in my family.

JO D. HATCH, Mayor.

The Fresh Poker Player.

The other day a young man with a downcast expression on his face, and chewing nervously on a tooth-pick, was walking hurriedly up and down the office of a city hotel. Once he stepped up and looked over the register, and then he would walk towards the door and flatten his nose against the glass and gaze wildly out into the street. Then he would walk around some more and look at everyone in the room with a wild, haunted, anxious look, which showed plainly that he wanted to see some one, and wanted to see him bad, too. He kept up the circus so long that finally the proprietor walked up to him and said:

"What seems to be the trouble, young man? You've either got to stop canting around this office or get out, one or the other. I'd just as soon have a wild hyena tramping around the office. Lost a friend, going to have a fit, or what ails you?"

"See here, mister," said the sad young man, as he took the tooth-pick out of his mouth, and spit at the spittoon with an excited, nervous effort, "I don't want you to get mad. I'm in trouble, the worst way, and I'm waiting for a friend who I know is in town, as I see his name on the register, and I want to see him and get him to help me out. I came down here last night, and I got into a little game of poker, and got 'done up,' and now I want to see my friend and get him to help me home."

The hotel man told him that was all right, but to stop his pacing around, or he would be obliged to shut him up in the coal shed until his "friend" came around.

The young man walked out towards the door, and presently his friend came in, and the twain walked out the door and down the street, the nervous young man explaining to his chum how it was that he came to get "floored," and asking for a loan until he got home.

The hotel man turned to a bystander and said:

"That's just the way it goes, and that makes the third case of that kind I've seen this winter. These young suckers from some little town come down here with a few dollars, and get in with the boys, and expect to play the eye-teeth out of them, and go back home with half the money in Milwaukee in their pants' pocket. I don't believe there's a bigger fool on earth than a young man who has learned to play poker a little, and who gets mashed on the game, and has played with the other boys in his town for kernels of corn, out in the barn, Sundays, when the folks were at church, till he thinks he knows more about the game than the oldest gambler in the country. In every little town, almost, on earth, there is just such a gang of young men who get an insight into the game of poker, and get so they can open a 'jack-pot' for four kernels of corn and not blush, or come out of the game ahead when playing 'penny ante' with their chums, and ten chances to one there is one of the number who has more gall than the rest, who imagines himself a thoroughbred, and who makes up his mind to go to some large place and win a few hundred dollars, and come home and make his chums' eyes hang out when he shows them his pile. He goes to work carrying in coal or driving team and saves up fifty or sixty dollars, and buys a ticket for some large city. He scorns the idea of purchasing a return trip ticket, as he thinks he will have a big stake when he gets ready to return

Veterinary Department

Conducted by Prof. Robert Jennings, late of Philadelphia, Pa., author of "The Horse and His Diseases," "Cattle and their Diseases," "Sheep, Poultry, and Pigs," "Diseases of Domestic Animals," etc. Professional advice through the columns of this journal to regular subscribers free. For those desiring information, please send their full name and address to the office of the FARMER. No questions will be answered by mail unless accompanied by a fee of one dollar. In order that correct information may be given the symptoms should be accurately described, how long standing, and what treatment, if any, has been resorted to. Private address, 201 First Street, Detroit.

Thorophorn.

MILFORD, May 7, 1883.
Veterinary Editor Michigan Farmer.
I have a light bay colt, three years old this spring. He weighs about ten hundred, is a good traveler and is well-built. Last September I noticed a small, soft lump on his hind joint. I applied iodine and the lump seemed to disappear. I kept him in the stall three weeks, then turned him out; but in a short time the lump was as large as ever. In January I put him in a box stall and applied the following blister, which seemed to help it some: pulverized cantharides, 1 oz.; mercurial ointment 2 oz.; tincture of iodine, 14 oz.; spirits of turpentine, 2 oz.; corrosive sublimate, 1 dr.; lard, 1 lb.; mix well. At first it was movable, so that I could press it through from one side to the other. Now it is much harder and in front and on the outside is nearly as large as a small hen's egg; on the inside is very much smaller. He does not favor it any. Can anything be done to help it? Will it be apt to grow any larger?
OLD SUBSCRIBER.

Answer. The trouble with your colt is thorophorn, for which you have assigned no cause. In an animal so young hereditary predisposition is indicated, unless the animal was injured in breaking to harness, or from abuse in driving. When we say abuse we do not mean intentional, but due to lack of knowledge of the power of endurance of an animal undeveloped or matured. Our experience justifies the assertion that no colt should be broken to harness until it has attained its fourth year, and even then it is not of mature age, hence more liable to injury, more particularly in the hock joint. If this rule was observed we would have better animals at 15 and 20 years old than we now have at eight or ten years of age. The treatment we would have recommended in the first place would have been cold water compresses, or folded cloth large enough to cover the enlargements, inside and out, and retained in place by a truss made for the purpose, which is expensive, or a leather socket molded to the joint and secured by straps and buckles. The compresses are saturated with cold water, and when properly adjusted are held in place by the leather socket. If the animal is not a valuable one, even this simple treatment will not pay, as it requires close attention in keeping the compresses wet and having them cover no more surface than the enlarged parts. If the disease is hereditary, it is doubtful if this or any other treatment would be attended with any permanent advantage. As enlargements of this character seldom cause lameness, treatment is rarely resorted to.

Congenital Deformity in a Colt.

SOUTH LYON, May 7, 1883.
Veterinary Editor Michigan Farmer.
I would like information in regard to a colt, which is ten months old, brown in color. When foaled it was weak in its ancles, but soon straightened up with the exception of hind ancles, which would go over one at a time; when one would straighten up the other would turn over, always turning in front, until about the first of January, when they straightened up and her front ancles turned over and she has not been able to stand her weight upon them yet without their turning over. She can walk a few rods at a time by walking partly on her ancles, then lies down to rest. She is well bred in the Hambletonian family, and I think will make a valuable mare if she gets all right. I put on boots made of boot leathers, with two splits in each boot; put three straps around each boot; kept her ancles up but made them sore. Have not had them on for two weeks; kept them on about two weeks; she does not seem to get any worse nor better. Please let me know through the FARMER if there can be any thing done for her.
A. H.

Answer. The chances are that the case has run too long for treatment to be of much service now. Plaster bandages applied in the first place would no doubt have straightened the legs, but in their present condition it is doubtful if any benefit would be derived from their application at this late date. The best advice we can give you under the circumstances is, to call a veterinary surgeon to examine the colt and be governed by his directions.

Swellings on the Knees and Throat in a Colt.

PARMA, May 10, 1883.
Veterinary Editor Michigan Farmer.
I have a colt ten days old, which when foaled could not stand, but has gained strength; is now on his legs, weak in the knees, with bunches on the knees in front near the outside, which are soft and appear to be loose; also a bunch in the throat. Can anything be done to remove them?
D. C.

Answer. Foment the puffy swellings about the knees well with hot water, then rub tolerably dry with a cloth and apply Evince Liniment; repeat the application once a day until reduced. The enlargement in the throat is probably glandular, to reduce which use tincture of iodine once a day. If this does not reduce the swelling the surgeon's knife is the surest remedy.

The Vermont Merino Sheep Shearing Association have issued the report of their annual shearing, held at Middlebury April 3, 4 and 5, in a neat little pamphlet. It contains also the constitution of the Association and the rules under which shearings are managed.

Mr. M. L. FRANK, of Oxford, Oakland Co., advertises some grade Jersey stock, which he recommends as possessing good milking qualities. Also a fine full blood heifer, unregistered.

A. J. ROSS sends us Harper's Monthly for June. This magazine improves with each month, and the present number is one of the finest yet published.

ONTARIO AND LIVINGSTON WOOL GROWERS' AND SHEEP BREEDERS' ASSOCIATION.

Report of the Fifteenth Annual Exhibition at Honeyoy, New York, May 22 and 23, 1883.

RAMS.				WETHERS.			
NAME OF OWNER.	NAME OR NO. OF SHEEP.	SIRE.	BREEDER.	NAME OF OWNER.	NAME OR NO. OF SHEEP.	SIRE.	BREEDER.
Reed & Holden	Shorthorn	Surprise	Owner	Highbottom Bros.	344	Crane	C. R. Case & Son
G. W. Waldron	Longlow	Longlow	Owner	Highbottom Bros.	345	Crane	C. R. Case & Son
A. B. Brown	Monarch	Monarch	Owner	Highbottom Bros.	346	Crane	C. R. Case & Son
H. D. Adams	Young Butler	Ben Butler	Owner	Highbottom Bros.	347	Crane	C. R. Case & Son
Pitts Bros. & Reed	Big Mark	Compromise	M. S. Leech	Highbottom Bros.	348	Crane	C. R. Case & Son
L. L. Pierpont	Banker	Crane	J. R. Worthington	Highbottom Bros.	349	Crane	C. R. Case & Son
J. C. Short & Beecher	Banker	Crane	J. R. Worthington	Highbottom Bros.	350	Crane	C. R. Case & Son
G. L. Adair	Banker	Crane	J. R. Worthington	Highbottom Bros.	351	Crane	C. R. Case & Son
J. C. Short	Golden	Crocket	M. S. Leech	Highbottom Bros.	352	Crane	C. R. Case & Son
Pitts Bros. & Reed	Little Mark	Compromise	M. S. Leech	Highbottom Bros.	353	Crane	C. R. Case & Son
D. L. Sullivan	Banker	Crane	J. R. Worthington	Highbottom Bros.	354	Crane	C. R. Case & Son
Ira O. Thompson	Gumption	Crane	J. R. Worthington	Highbottom Bros.	355	Crane	C. R. Case & Son
R. W. Travis	Crane	Crane	J. R. Worthington	Highbottom Bros.	356	Crane	C. R. Case & Son
G. W. Waldron	Crane	Crane	J. R. Worthington	Highbottom Bros.	357	Crane	C. R. Case & Son
B. T. Case	Longstreet	Townsend	R. W. Travis	Highbottom Bros.	358	Crane	C. R. Case & Son
H. D. Adams	Oliver Twist	Crane	J. R. Worthington	Highbottom Bros.	359	Crane	C. R. Case & Son
Pitts Bros. & Reed	Crane	Crane	J. R. Worthington	Highbottom Bros.	360	Crane	C. R. Case & Son
J. C. Short & Beecher	Crane	Crane	J. R. Worthington	Highbottom Bros.	361	Crane	C. R. Case & Son
Pitts Bros. & Reed	Crane	Crane	J. R. Worthington	Highbottom Bros.	362	Crane	C. R. Case & Son
J. C. Short	Crane	Crane	J. R. Worthington	Highbottom Bros.	363	Crane	C. R. Case & Son
Oscar Phillips	Will Lincoln	Mariner	Will Lincoln	Highbottom Bros.	364	Crane	C. R. Case & Son
Jno. W. McCaskey	Crane	Crane	J. R. Worthington	Highbottom Bros.	365	Crane	C. R. Case & Son
Thomas & Swan	Golden Gate	Compromise	M. S. Leech	Highbottom Bros.	366	Crane	C. R. Case & Son
D. L. Pierpont	Crane	Crane	J. R. Worthington	Highbottom Bros.	367	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	368	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	369	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	370	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	371	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	372	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	373	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	374	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	375	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	376	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	377	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	378	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	379	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	380	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	381	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	382	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	383	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	384	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	385	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	386	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	387	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	388	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	389	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	390	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	391	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	392	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	393	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	394	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	395	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	396	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	397	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	398	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	399	Crane	C. R. Case & Son
do	Crane	Crane	J. R. Worthington	Highbottom Bros.	400	Crane	C. R. Case & Son

WETHERS.				WETHERS.			
NAME OF OWNER.	NAME OR NO. OF SHEEP.	SIRE.	BREEDER.	NAME OF OWNER.	NAME OR NO. OF SHEEP.	SIRE.	BREEDER.
Highbottom Bros.	344	Crane	C. R. Case & Son	Highbottom Bros.	345	Crane	C. R. Case & Son
Highbottom Bros.	345	Crane	C. R. Case & Son	Highbottom Bros.	346	Crane	C. R. Case & Son
Highbottom Bros.	346	Crane	C. R. Case & Son	Highbottom Bros.	347	Crane	C. R. Case & Son
Highbottom Bros.	347	Crane	C. R. Case & Son	Highbottom Bros.	348	Crane	C. R. Case & Son
Highbottom Bros.	348	Crane	C. R. Case & Son	Highbottom Bros.	349	Crane	C. R. Case & Son
Highbottom Bros.	349	Crane	C. R. Case & Son	Highbottom Bros.	350	Crane	C. R. Case & Son
Highbottom Bros.	350	Crane	C. R. Case & Son	Highbottom Bros.	351	Crane	C. R. Case & Son
Highbottom Bros.	351	Crane	C. R. Case & Son	Highbottom Bros.	352	Crane	C. R. Case & Son
Highbottom Bros.	352	Crane	C. R. Case & Son	Highbottom Bros.	353	Crane	C. R. Case & Son
Highbottom Bros.	353	Crane	C. R. Case & Son	Highbottom Bros.	354	Crane	C. R. Case & Son
Highbottom Bros.	354	Crane	C. R. Case & Son	Highbottom Bros.	355	Crane	C. R. Case & Son
Highbottom Bros.	355	Crane	C. R. Case & Son	Highbottom Bros.	356	Crane	C. R. Case & Son
Highbottom Bros.	356	Crane	C. R. Case & Son	Highbottom Bros.	357	Crane	C. R. Case & Son
Highbottom Bros.	357	Crane	C. R. Case & Son	Highbottom Bros.	358	Crane	C. R. Case & Son
Highbottom Bros.	358	Crane	C. R. Case & Son	Highbottom Bros.	359	Crane	C. R. Case & Son
Highbottom Bros.	359	Crane	C. R. Case & Son	Highbottom Bros.	360	Crane	C. R. Case & Son
Highbottom Bros.	360	Crane	C. R. Case & Son	Highbottom Bros.	361	Crane	C. R. Case & Son
Highbottom Bros.	361	Crane	C. R. Case & Son	Highbottom Bros.	362	Crane	C. R. Case & Son
Highbottom Bros.	362	Crane	C. R. Case & Son	Highbottom Bros.	363	Crane	C. R. Case & Son
Highbottom Bros.	363	Crane	C. R. Case & Son	Highbottom Bros.	364	Crane	C. R. Case & Son
Highbottom Bros.	364	Crane	C. R. Case & Son	Highbottom Bros.	365	Crane	C. R. Case & Son
Highbottom Bros.	365	Crane	C. R. Case & Son	Highbottom Bros.	366	Crane	C. R. Case & Son
Highbottom Bros.	366	Crane	C. R. Case & Son	Highbottom Bros.	367	Crane	C. R. Case & Son
Highbottom Bros.	367	Crane	C. R. Case & Son	Highbottom Bros.	368	Crane	C. R. Case & Son
Highbottom Bros.	368	Crane	C. R. Case & Son	Highbottom Bros.	369	Crane	C. R. Case & Son
Highbottom Bros.	369	Crane	C. R. Case & Son	Highbottom Bros.	370	Crane	C. R. Case & Son
Highbottom Bros.	370	Crane	C. R. Case & Son	Highbottom Bros.	371	Crane	C. R. Case & Son
Highbottom Bros.	371	Crane	C. R. Case & Son	Highbottom Bros.	372	Crane	C. R. Case & Son
Highbottom Bros.	372	Crane	C. R. Case & Son	Highbottom Bros.	373	Crane	C. R. Case & Son
Highbottom Bros.	373	Crane	C. R. Case & Son	Highbottom Bros.	374	Crane	C. R. Case & Son
Highbottom Bros.	374	Crane	C. R. Case & Son	Highbottom Bros.	375	Crane	C. R. Case & Son
Highbottom Bros.	375	Crane	C. R. Case & Son	Highbottom Bros.	376	Crane	C. R. Case & Son
Highbottom Bros.	376	Crane	C. R. Case & Son	Highbottom Bros.	377	Crane	C. R. Case & Son
Highbottom Bros.	377	Crane	C. R. Case & Son	Highbottom Bros.	378	Crane	C. R. Case & Son
Highbottom Bros.	378	Crane	C. R. Case & Son	Highbottom Bros.	379	Crane	C. R. Case & Son
Highbottom Bros.	379	Crane	C. R. Case & Son	Highbottom Bros.	380	Crane	C. R. Case & Son
Highbottom Bros.	380	Crane	C. R. Case & Son	Highbottom Bros.	381	Crane	C. R. Case & Son
Highbottom Bros.	381	Crane	C. R. Case & Son	Highbottom Bros.	382	Crane	C. R. Case & Son
Highbottom Bros.	382	Crane	C. R. Case & Son	Highbottom Bros.	383	Crane	C. R. Case & Son
Highbottom Bros.	383	Crane	C. R. Case & Son	Highbottom Bros.	384	Crane	C. R. Case & Son
Highbottom Bros.	384	Crane	C. R. Case & Son	Highbottom Bros.	385	Crane	C. R. Case & Son
Highbottom Bros.	385	Crane	C. R. Case & Son	Highbottom Bros.	386	Crane	C. R. Case & Son
Highbottom Bros.	386	Crane	C. R. Case & Son	Highbottom Bros.	387	Crane	C. R. Case & Son
Highbottom Bros.	387	Crane	C. R. Case & Son	Highbottom Bros.	388	Crane	C. R. Case & Son
Highbottom Bros.	388	Crane	C. R. Case & Son	Highbottom Bros.	389	Crane	C. R. Case & Son
Highbottom Bros.	389	Crane	C. R. Case & Son	Highbottom Bros.	390	Crane	C. R. Case & Son
Highbottom Bros.	390	Crane	C. R. Case & Son	Highbottom Bros.	391	Crane	C. R. Case & Son
Highbottom Bros.	391	Crane	C. R. Case & Son	Highbottom Bros.	392	Crane	C. R. Case & Son
Highbottom Bros.	392	Crane	C. R. Case & Son	Highbottom Bros.	393	Crane	C. R. Case & Son
Highbottom Bros.	393	Crane	C. R. Case & Son	Highbottom Bros.	394	Crane	C. R. Case & Son
Highbottom Bros.	394	Crane	C. R. Case & Son	Highbottom Bros.	395	Crane	C. R. Case & Son
Highbottom Bros.	395	Crane	C. R. Case & Son	Highbottom Bros.	396	Crane	C. R. Case & Son
Highbottom Bros.	396	Crane	C. R. Case & Son	Highbottom Bros.	397	Crane	C. R. Case & Son
Highbottom Bros.	397	Crane	C. R. Case & Son	Highbottom Bros.	398	Crane	C. R. Case & Son
Highbottom Bros.	398	Crane	C. R. Case & Son	Highbottom Bros.	399	Crane	C. R. Case & Son
Highbottom Bros.	399	Crane	C. R. Case & Son	Highbottom Bros.	400	Crane	C. R. Case & Son

The following is a list of the exhibitors.
P. & C. E. Reed, 12 head—Two year old ram, two year old ewe and ten yearling ewes.
D. O. Pierpont, 47 head—Twenty-five yearling rams, two three-year-old rams, and 20 yearling ewes.
J. C. Short, eight head—Four rams three years old or over, two ewes three years old or over, and two lambs.
H. D. Adams, 17 head—Four yearling rams, one ram three years or over, and 13 yearling ewes.
P. R. Reed, two head—A ram two years old, and one three years old or over.
Pitts Bros. & Reed, three head—Three rams three years old or over.
O. B. Brown, nine head—One yearling ram, two ewes two years old, two three years old, and four lambs.
S. T. Short, 15 head—One yearling ram, three rams three years old, six yearling ewes and five ewes two years old.
H. D. Adams, one head—Ram one year old.
E. K. Stevens, one head—Ram two years old.
Geo. Waldron, two head—Ram two years old, and ram three years old or over.
Mrs. B. T. Case, three head—Ram one year old, ewe three years old or over, and a lamb.
Gideon Pitts, three head—Ewe one year old and two two years old.
D. D. Short, two head—Yearling ram and one three years old or over.
L. L. Pierpont, 26 head—Two yearling rams, three years or over, five yearling ewes, and five ewes two years old or over.
On Saturday last, Messrs. Roe & Tucker had in the Central Yards one of the finest lots of cattle ever brought from one farm in the State. They were three year old steers and were fed on the farm of Mr. Fred Buhl, the well-known hatter of Detroit, which is located near Newport, Monroe County. These cattle were purchased by Mr. Buhl last fall, and cost \$5 per hundred, and were sold to Messrs. Roe & Tucker at \$6.55, their average weight being 1,450 pounds. They were a smooth lot and were fully ripe for the butchers' block. Cattle of this weight are selling for less money in proportion than lighter weights of equal quality, as will be seen by our market reports. Steers of 1,250 pounds bringing the same, Chicago, St. Louis and Kansas City markets show the same state of trade, the demand and prices being in favor of 1,100 to 1,300 pound animals. Mr. N. Lynett has charge of Mr. Buhl's farm, and the shape in which he sent these cattle to market shows that he belongs among the most competent of our feeders.

COMMERCIAL.

DETROIT WHOLESALE MARKET.

Flour.—Receipts for the week, 3,508 bbls; against 3,420 bbls the previous week; shipments, 2,210 bbls. No change in flour, which is firm and steady at last week's quotations. There is a fair movement of stock for the season, but the wheat market makes millers very cautious about allowing stocks to accumulate. Quotations yesterday were as follows:
Winter wheat, city brand, No. 1, \$3.50
Winter wheat, country, No. 1, \$3.40
Minnesota patent, No. 1, \$3.50
Minnesota patent, No. 2, \$3.40
Wheat.—The market opened strong yesterday, and early in the day rates were advanced 47c what. Later a weaker feeling set, and the advance was lost, prices closing about Saturday's rates for cash wheat, and a shade lower for June and July delivery. Closing rates were as follows:
No. 1 white, \$1.05; No. 2 do, \$1.04; No. 3 do, \$1.03; No. 2 red, \$1.02; No. 3 do, \$1.01.
In futures closing prices were as follows: June, \$1.01; July, \$1.0